

**HOW TO:** Record and Watch TV on Your Mac

# Macworld

www.macworld.com | October 2007

## The iMac Evolves

### COMPLETE REVIEW

- Faster Processor
- Shiny High-Def Screen
- Radical New Keyboard



**PLUS**

**First Look at iLife  
and iWork '08**

\$6.99 U.S./\$7.99 Canada







*A Chrysler Building engineer, captured by Vincent Laforet.*



**Aperture Profile: Vincent Laforet,**  
**LIFE magazine, Chrysler Building, New York, NY**  
*Vincent sets up for his shots, photographs a Chrysler Building engineer at work, then uses Aperture to import, edit, catalog, organize, retouch and publish his photos to his website, all from the top of the Chrysler Building.*



# To get the shot, Vincent Laforet battled vertigo, high winds and the pressure of an early deadline.

Atop Manhattan's famous Chrysler Building, routine maintenance is no easy task. Neither is capturing breathtaking photos of it. So with just a limited amount of time to shoot an engineer at work on one of the building's famous eagles, Vincent Laforet enlisted the help of Aperture™ and his MacBook™ Pro.

Only Aperture, the first all-in-one post-production tool for photographers, could help Vincent manage his entire workflow within such a narrow time frame.

Working in RAW from start to finish, Vincent used Aperture to immediately catalog his shots as he took them, add important metadata, compare full-screen RAW photos with Aperture's Stacks and built-in Loupe, then publish the final photos to his website — all from a landing on the 61st floor. By the time the shoot was over, thanks to Aperture, Vincent knew with certainty he'd made the most of his one chance.

Aperture gives photographers the post-production tools they need to shoot with confidence from anywhere. Which is something Vincent Laforet appreciates when he's on the ground, up in the air or somewhere in between.

For more of this story and others, visit [apple.com/aperture/profiles](http://apple.com/aperture/profiles)



 **Aperture**





**Introducing color laser printing for everyone  
whose goals are bigger than their budgets.  
It's called Plan b.**



**HL-4040CN**  
Network Ready Color Laser Printer  
**\$399\***



**HL-4070CDW**  
Wireless Color Laser Printer  
**\$499\***



**MFC-9440CN**  
Color Laser All-in-One  
**\$699\***

**Up to 21ppm**





Plan A called for you to break the bank on color printing. Or settle for fewer features and slow print speeds. It's time for Plan B. The new Brother color laser printers and all-in-ones offer up to 21ppm\* color and monochrome output speeds. Professional, razor-sharp laser quality. And affordability today and into the future. It's a value you won't find anywhere else. So before you settle for Plan A, make the better choice.

We call it Plan B. Visit us online at [www.brother.com](http://www.brother.com)

At your side.  
**brother**®

**Available at:** OfficeDepot, Office Max, Staples, Fry's Electronics, BestBuy.com, Costco.com, Brandsmart, Microcenter, J&R Computer World, CDW, Insight, PC Connection, PC Mall, Zones, Quill, PC Nation, [TigerDirect.com](http://TigerDirect.com), Provantage, [Amazon.com](http://Amazon.com), [Buy.com](http://Buy.com), [Newegg.com](http://Newegg.com) and other fine resellers.

\*Estimated street price may vary. †pages per minute.

© 2007 Brother International Corporation, Bridgewater, NJ  
Brother Industries, Ltd. Nagoya, Japan



# MacMall®

The #1 Apple Direct Reseller!



FREE HP C3180 All-in-One  
Printer after rebates!  
With CPU purchase. See below.

## MacMall Has the Best Deals on Apple® Computers!

Call MacMall and learn how to integrate your iPod® and your computer with your widescreen plasma or LCD TV!

### The ALL-NEW Apple iMac! Now up to 2.4GHz!

The coolest all-in-one computer just got an overhaul that makes it faster, sleeker and more desirable than ever before! The NEW iMac has packs incredible power, new graphics and an iSight™ video camera in a gorgeous aluminum design that looks like a work of art!

- NEW! Intel Core 2 Duo processor at up to 2.4GHz or Intel Core 2 Extreme processor at 2.8GHz
- NEW! ATI Radeon HD video graphics
- NEW! Aluminum casing and ultra-thin keyboard

**Faster than Ever!**  
**NEW Aluminum Case!**  
**NEW Glossy Screen!**

starting at **\$1194**  
(mail-in rebate) - \$50

NEW iMac  
starting at **\$1144!**



### Apple MacBook™

Get up to **'100 cash back!**  
Parallels Desktop 3.0 for  
Mac only **'99!**

With MacBook purchase.  
After mail-in rebates. While  
supplies last! Call for details.

starting at **\$1094**  
(mail-in rebate) - \$75  
**\$1019!**

### NEW! Apple Mac® mini

Get **'25 cash back!**  
Parallels Desktop 3.0 for  
Mac only **'99!**

With Mac mini purchase.  
After mail-in rebates. While  
supplies last! Call for details.

starting at **\$594**  
(mail-in rebate) - \$25  
**\$569!**

NEW! Apple iLife™ '08  
#7288385

**New!**

only **\$69.98!**  
\$89.95

#7288386 Apple iLife '08 Family Pack

NEW! Apple iWork™ '08  
#7288383

**New!**

only **\$69.98!**  
\$89.95

#7288384 Apple iWork '08 Family Pack

## MacBook Pro! Now up to 2.4GHz!

With faster speeds and graphics and display options, the revamped MacBook™ Pro gives you more power than ever before so you can hit the road with everything you need to be fully productive wherever you go!

- NEW! Intel Core 2 Duo up to 2.4GHz
- NEW! NVIDIA pro video graphics

starting at **\$1994**  
(mail-in rebate) - \$150

MacBook Pro **\$1844!**  
starting at

- NEW! 15" model with LED-backlit display and 17" model with optional 1920 x 1200
- iSight™, wireless and Gigabit Ethernet



\*REBATE-Purchase a Mac, MacBook, Mac Pro, MacBook Pro or Mac mini and receive up to \$200 cash back via MacMall mail-in rebate. Ends 9/4/07. ■ PARALLELS DESKTOP OFFER-Get Parallels Desktop 3.0 for Mac (#7257816) for only \$9.99 after \$10 mfc. and \$60 MacMall mail-in rebates with purchase of any new Intel-based Apple CPU. Price before rebates is \$79.99. Ends 9/30/07. ■ FREE PRINTER OFFER-Get an HP PhotoSmart C3180 All-in-One FREE after \$20 MacMall instant rebate and after \$29.99 MacMall mail-in and \$50 mfc. mail-in rebates with purchase of any Apple computer. Price before rebates is \$99.99. OR get an Epson Stylus Photo R260 Printer FREE after \$19.99 MacMall mail-in and \$70 mfc. mail-in rebates with purchase of any Apple computer. Price before rebate is \$89.99. Offers may not be combined. Ends 9/4/07. ■ LAPTOP BACKPACK OFFER-Get a laptop backpack for only \$9.99 after \$20 mfc. mail-in rebate with purchase of any MacBook or 15" MacBook Pro. Price before rebate is \$29.99. Ends 9/4/07. ■ ALL OFFERS VALID WHILE SUPPLIES LAST. For rebate terms and conditions, please visit our Web site and enter the applicable part number. Download rebate coupons at [www.macmall.com/rebates](http://www.macmall.com/rebates).

1-800-321-7532 | [www.macmall.com](http://www.macmall.com)

SOURCE CODE: MACWORLD





**18** Apple's Record Sales



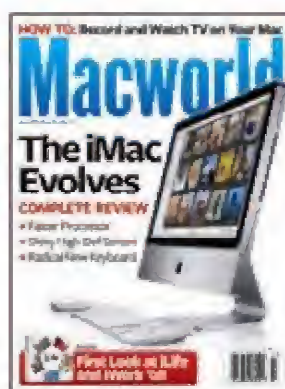
**32** Mac, Camera, Action!



**28**

On the Cover

Photograph by Peter Belanger



#### OPINION

#### 9 From the Editor's Desk

While iPods and iPhones get all the headlines, the untold story is that the Mac itself is on a roll.

#### 14 Feedback

Readers respond.

#### MAC BEAT

#### 18 Apple's Record Sales

A huge Mac sales quarter is matched by early iPhone sales.

#### 20 Wozniak's Words

Apple cofounder Steve Wozniak talks about Apple and how he met the other Steve.

#### 26 I Want Buttons

The next iPod shouldn't be like the iPhone.

#### 28 Hot Stuff

Check out the cool products we're into right now.

#### REVIEWS

#### 32 Mac, Camera, Action!

Adobe's Creative Suite 3 Production Premium package features something old, something new, and plenty of extras geared toward the video enthusiast who wants postproduction options.

#### 44 [macworld.com/reviews](http://macworld.com/reviews)

We're constantly reviewing the latest Mac hardware and software on Macworld.com. Here are quick summaries of this month's online exclusives.

#### 48 Top Products

Looking for a new printer, monitor, digital camera, or other hardware? Check out our current favorites, as well as a complete listing of all current Macs and iPods.

#### 50 Mac Gems

Color-code a Web page's source code in Safari, customize your iCal Dock icon, manage Finder windows from the menu bar, and corral all the PDF documents on your computer.



**COVER STORY**

**54** The iMac Makeover

Apple hasn't significantly revamped the iMac since 2004—until now. There are changes both outside and in. Here's what we think of the whole package. Plus: A first look at iLife and iWork '08.

**FEATURE**

**64** Now Playing

Thanks to streaming Internet content and a host of smart hardware options, you can now watch your favorite shows right on your Mac.

**SECRETS**

**74** Working Mac

Here are answers to some of the most common questions people have when they're considering switching to voice over IP.

**78** Playlist

Whether you're a student or a curious adult, find out how to use your iPod as a learning tool.

**80** Digital Photo

Go beyond plain printer paper to discover a world of alternative media types, including inexpensive glossy papers, fine-art papers, and even fabrics.

**82** Mobile Mac

We round up a few of our favorite pieces of low-cost software specifically designed for—or especially useful for—portable Macs.

**84** Geek Factor

Learn how to use a virtualization program to run Linux on your Intel Mac.

**HELP DESK**

**86** Mac OS X Hints

Use your voice to open your Safari bookmarks, use OS X's helpful tools to find symbols, shrink disk images down to size, and more.

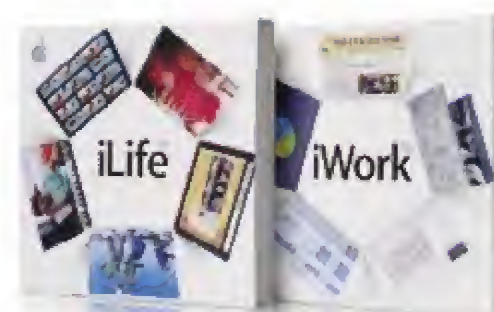
**90** Mac 911

Get better picture quality from iDVD slide-show projects, troubleshoot a malfunctioning printer, export only select contacts you want to your phone, and more.

**BACK PAGE**

**112** Spotlight

Dan Frakes explains why the iPhone is the iPod of phones.



First Look: iLife and iWork '08

**60**

**64**

**MACWORLD.COM'S TOP 5**

The top 5 stories on Macworld.com are:

**1 Cisco Access Point at Fault for Duke's Wireless Issues**  
After originally blaming network problems on the iPhone, Duke University confirmed that a Cisco device was at fault ([macworld.com/2978](http://macworld.com/2978)).

**2 Reviews: Apple iPhone**  
Jason Snell finds that although the iPhone isn't perfect, it makes good on the hype that surrounded it ([macworld.com/2957](http://macworld.com/2957)).

**3 PC World: 13 Reasons Not to Get an iPhone**  
PC World Editor in Chief Harry McCracken thinks his Windows Mobile-based AT&T 8525 stacks up very well against the iPhone ([macworld.com/2979](http://macworld.com/2979)).

**4 With iPhone Out, Attention Turns to Second-Gen Model**  
The first-generation iPhone is barely on the streets, but Computerworld finds that some users and analysts are already talking about a second-generation model ([macworld.com/2980](http://macworld.com/2980)).

**5 PC World: 10 Things Apple Did Right and Wrong**  
Our sister publication lists the things that make Apple unique and maddening at the same time ([macworld.com/2981](http://macworld.com/2981)).

(Ranking valid as of July 26, 2007)





FREE YOUR LAPTOP.  
FREE YOUR MIND.



Now you can take your creativity even further on America's most reliable wireless broadband network. The USB720 modem with BroadbandAccess lets you download inspiration, upload genius, surf the Web and access email on your laptop when you're on the go. All with a secure connection that works just as fast as you do.

USB720 Modem  
**\$99.99**  
after rebate.

\$149.99 2-yr. price - \$50 mail-in rebate.  
2-yr. agmt. on BroadbandAccess plan req'd.

visit a verizon wireless communications store, [verizonwireless.com/usb720](http://verizonwireless.com/usb720) or call 1.800.899.4249

BroadbandAccess is available in 242 major metros in the U.S. Offers & coverage not available everywhere. Network details & coverage maps at [vzw.com](http://vzw.com). America's most reliable wireless network claim based on fewest aggregate blocked and dropped connections. See [verizonwireless.com/bestnetwork](http://verizonwireless.com/bestnetwork) for details. ©2007 Verizon Wireless.



# Eliminate paper. Liberate your cool.

photo: raster-lab.com



**Fujitsu ScanSnap. It's a snap.** Why push paper when you can push a button? Free yourself with the new ScanSnap S500M scanner, the most powerful solution in its class for turning paper into electronic documents. Since the Fujitsu ScanSnap comes preloaded with Adobe® Acrobat® 7.0 Standard (a \$299 value), one touch of a button is all it takes to turn double-sided documents into PDFs, ideal for storing, protecting and sharing documents. And you'll be doing it fast. Native support for the new Intel® chipset delivers a blazing 18 pages per minute scan speed. All this and it's small enough to fit where your inbox used to be. So get rid of paper and get back your cool with the Fujitsu ScanSnap. It's a snap! Visit us at <http://us.fujitsu.com/scanners/96AA> for more information.

Free I.R.I.S. card scanning and OCR software\*



ScanSnap S500M  
**\$495** MSRP

## FUJITSU

THE POSSIBILITIES ARE INFINITE



© 2007 Fujitsu Computer Products of America, Inc. All rights reserved. Fujitsu and the Fujitsu logo are registered trademarks of Fujitsu Ltd. Adobe and Acrobat are registered trademarks or trademarks of Adobe Systems Incorporated in the United States and/or other countries. Cardiris, Readiris and the I.R.I.S. logo are I.R.I.S. trademarks. All other trademarks are the property of their respective owners. I.R.I.S. software promotion is available through downloadable mail-in rebate form and is retroactive to October 1, 2006.



# The Rise of the Mac

The iPod and iPhone? Try record Mac sales and exciting new Mac products.

**W**hile iPods and iPhones have been garnering all the newspaper headlines, the untold story is that the Mac itself is on a roll.

In Apple's most recent financial quarter, the company sold more Macs than it ever has before (see *Mac Beat*, "Apple's Record Sales," page 18.) And more than half the Macs Apple sells in its retail stores are going to first-time Mac users. The good times kept rolling in early August, when Apple announced more new hardware and software than you could shake a very large stick at.

## The New iMac Arrives

The new, faster iMac (see our review, page 54) comes in the shape we've known since 2004, but now it's clad in silver aluminum and black glass instead of shiny white plastic. But it's not just about looks: inside, the processors are faster, the video circuitry is better, and the maximum RAM and hard-drive size are larger.

While a video editor or 3-D renderer might demur, the rest of us habitual buyers of professional-level Mac desktops should give the iMac some serious consideration. Apple now considers the iMac line the right Mac for (as Steve Jobs himself said) "consumers [and] prosumers, but a lot of our pro customers as well." As someone with a Power Mac G5 and an Apple Cinema Display sitting in my home office, I'm sorely tempted to keep the monitor, but attach it to one of these new iMacs.

However, a couple aspects of the new iMac will give some iMac buyers pause. One of them is the new glossy screen. I've come to love the glossy screen on my MacBook, but it's easier to reposition a laptop if glare makes the screen hard to read. The new iMac screen looks gorgeous, but glare is a pretty serious problem.

Then there's the new keyboard, which is essentially a deskbound version of the one built into the MacBook. On my laptop, I like that feel. But at my



**If Mac users embrace Numbers and Pages, this could get really interesting.**

desk, it feels strange. At the very least, it will take some getting used to.

## Enter iLife and iWork '08

After 20 months of waiting, it's exciting to finally have new versions of iLife and iWork to kick around (see page 60). As is de rigueur for iLife these days, the primary focus is on iPhoto. After incrementally improving the program's speed over the past few years, Apple has now turned its attention to managing the large numbers of photos that users have collected since the advent of digital photography. Out go the so-very-analog Rolls, and in come Events. iPhoto's editing tools keep getting more powerful, letting users get better results without having to learn Photoshop. And the new .Mac Web Gallery feature might finally make .Mac worth the money.

But for me, the big news in this release is iMovie. The first two versions of iMovie were groundbreaking, brilliant, and speedy. Then something bad happened: someone at Apple mandated that iMovie be rewritten, and the

"upgrade" from iMovie 2 to iMovie 3 was a disaster. I have largely refrained from editing my home movies for the past few years because my iMovie experience has been so frustrating.

With iMovie '08, I might have to get back to the editing grind. This new version of iMovie is truly the third iMovie. It's so radically different that advanced iMovie users may want to keep using iMovie HD 6 or upgrade to Final Cut Express. But for basic, super-fast video production—which is what iMovie was supposed to be designed for—the new iMovie appears to be a bold step forward.

Then there's iWork '08. More than four years after the introduction of Keynote, the addition of the Numbers spreadsheet program to iWork '08 means that Apple's alternative office suite is now complete. I can't imagine cross-platform workgroups abandoning Office for iWork. But if you're an all-Mac shop, the promise of using Numbers and maybe even the word-processing features of Pages is pretty intriguing.

I use Keynote for almost every presentation I give. I love it. But I do keep PowerPoint around, because twice a year I need to create a portion of a larger corporate presentation that is created mostly by Windows users. Keynote's not an option for them, and though I could investigate using Keynote and then exporting my files to PowerPoint format, it's easier for me to keep a copy of Office around.

But Keynote's definitely gotten a foothold in my life. And if I had to choose between PowerPoint and Keynote (and painful Keynote-to-PowerPoint conversions), I'd choose Keynote in a heartbeat. If Mac users embrace Numbers and Pages the same way, this could get really interesting. ☒

Got a comment about the new iMacs, iLife '08, iWork '08, or the new Mac mini? Join the discussion at [macworld.com/forums](http://macworld.com/forums), or drop me a note at [jason\\_snell@macworld.com](mailto:jason_snell@macworld.com).



# We improved perfection.

When you need to simplify, identify, track or organize, the Smart Label Printer\* from Seiko Instruments is ideal.

Easily create custom labels with 1-D and 2-D bar coding, such as Codabar, UPC, EAN, Code 128, MaxiCode, PDF417 or Data Matrix using our bundled Smart Label software. Simply plug the SLP into your Mac\* and print labels quickly, as fast as one label per second, in clear, legible, machine-scannable 300 dpi. The SLP is hassle free with no ink, noise, or fuss thanks to our clean and quiet direct thermal printing.

Choose from three great SLP models and our expanding line of SmartLabels™. See all the Smart Label Printer products at [www.siiibusinessproducts.com](http://www.siiibusinessproducts.com) or our authorized resellers.

Buy.com • CDW • CompUSA  
Fry's Electronics • Micro Center



Mark or identify  
with SLP-35L  
or SLP-27210

Label packages  
with SLP-SRL  
or SLP-SRLC

**SII**

Seiko Instruments USA Inc.

© 2007 Seiko Instruments USA Inc. All rights reserved. "Smart Label Printer" is a registered trademark and "SmartLabels" is a trademark of Seiko Instruments USA Inc. "SII" and "SII" logo are registered trademarks of Seiko Instruments USA Inc. All other brand and trademarks are the property of their respective companies.

## Macworld

<b>VP, Editorial Director</b>	Jason Snell
<b>Executive Editor, Print</b>	Dan Miller
<b>Executive Editor, Online</b>	Philip Michaels
<b>Managing Editor, Print</b>	Sue Voelkel
<b>Managing Editor, Online</b>	Curt Poff
<b>Art Director</b>	Rob Schultz
<b>Macworld.com News Director</b>	Jim Dalrymple
<b>Senior Editor, Features</b>	Kelly Turner
<b>Senior Editor, How-to</b>	Scholle Sawyer McFarland
<b>Senior Editor, News</b>	Jonathan Seff
<b>Senior Editor, Reviews</b>	Jackie Dove
<b>Lab Director</b>	James Galbraith
<b>Senior Editors</b>	Christopher Breen, Peter Cohen, Dan Frakes, Rob Griffiths
<b>Senior Copy Editor</b>	Sally Zahner
<b>Associate Editor, Reviews</b>	Eric Suesz
<b>Associate Editor</b>	Dan Moren
<b>Assistant Editor</b>	Brian Chen
<b>Designer</b>	Carli Morgenstein
<b>Editor at Large</b>	Rick LePage
<b>Senior Contributors</b>	Adam C. Engst, Jim Heid, Ted Landau
<b>Contributing Editor</b>	Cathy Lu
<b>Contributing Lab Analyst</b>	Jerry Jung
<b>Contributing Copy Editors</b>	Gail Nelson-Bonebrake, Charles Purdy
<b>Production Consultant</b>	Jennifer Werner
<b>Contributing Photographer</b>	Peter Belanger
<b>Director, Web Design</b>	Jason Brightman
<b>Deputy Art Director, Online</b>	Pierre Granier
<b>Media Specialist, Online</b>	Chris Manners
<b>Designer, Online</b>	Chip Taylor

**Absent Friends:** John J. Anderson, Andrew Fluegelman, Bruce Fraser, Cary Lu, Charles Seiter, Derek Van Alstyne

### HOW TO CONTACT MACWORLD SUBSCRIPTION SERVICES

Access your subscription account online—24 hours a day, 7 days a week—at [www.macworld.com/customer\\_service](http://www.macworld.com/customer_service) or <http://service.macworld.com>. You can use online subscription services to view your account status, change your address, pay your bill, renew your subscription, report a missing or damaged issue, get the answers to frequently asked questions, and much more.

To start subscribing, visit <http://subscribe.macworld.com>.

<b>U.S. Mail</b>	Macworld Subscriptions Department P.O. Box 37781, Boone, IA 50037-0781 (If you are writing about an existing account, please include your name and address as they appear on your mailing label.)
<b>E-mail</b>	<a href="mailto:subhelp@macworld.com">subhelp@macworld.com</a> (Send your full name and the address at which you subscribe; do not send attachments.)
<b>Fax</b>	515/432-6994
<b>Phone</b>	800/288-6848 from the United States and Canada; 515/243-3273 from all other locations

The one-year (12-issue) subscription rate is \$34.97; the two-year rate, \$59.97; and the three-year rate, \$79.97. Foreign orders must be prepaid in U.S. funds; add \$10 per year for postage to Canada or \$25 per year for air freight to all other countries. Checks must be made payable in U.S. currency to Macworld. Please allow 3 to 6 weeks to receive your first issue or for changes to be made to an existing subscription.

### MACWORLD EDITORIAL

The editors of Macworld welcome your tips, compliments, or complaints. Some stories and reviews from past issues can be located at [www.macworld.com](http://www.macworld.com). We are unfortunately unable to look up stories from past issues, recommend products, or diagnose your Mac problems by phone, e-mail, or fax. You can contact Apple toll-free, at 800/538-9696, or visit the company's Web site, at [www.apple.com](http://www.apple.com). For editorial and advertising contact information, please turn the page.

### October 2007, Volume 24, Issue 10

Macworld is a publication of Mac Publishing, L.L.C., and International Data Group, Inc. Macworld is an independent journal not affiliated with Apple, Inc. Copyright © 2007, Mac Publishing, L.L.C. All rights reserved. Macworld, the Macworld logo, Macworld Lab, the mouse-ratings logo, Mac Central.com, PriceGrabber, and Mac Developer Journal are registered trademarks of International Data Group, Inc., and used under license by Mac Publishing, L.L.C. Apple, the Apple logo, Mac, and Macintosh are registered trademarks of Apple, Inc. Printed in the United States of America.

**IDG**  
INTERNATIONAL DATA GROUP



# Go The Distance With **NuPower**<sup>®</sup> High Capacity Batteries

## PowerBook<sup>®</sup> & iBook<sup>®</sup> Batteries

Built to outrun and outlive any other battery

"...completely delighted with the performance."

-MacOpinion.com

- Balanced top tier Li-Ion power cells for unmatched quality and performance.
- Thermal Fuse Technology protects you and your laptop.
- Preserves original appearance of your laptop with matching fit and finish.
- Free battery recycling return label.
- RoHS compliant.
- Made in the USA.



Starting from **\$99.95**

**COMING SOON...**

MacBook<sup>®</sup> and MacBook Pro Batteries!

## iPod<sup>®</sup> Batteries

Listen, watch, and play longer with **HOURS** added to your runtime!

Starting from **\$19.99**

## NuPower VIDEO+<sup>™</sup>

Rechargeable battery pack, stand, and docking station for the 5th Gen iPod video.



"You will absolutely love this product...more than quadrupled my video or audio playback times."  
- the iPod Observer

**Plug and Play** for effortless enjoyment of your digital media.

- All-in-one design.
- No extra charger needed.
- Built-in dock connector.
- Up to 16 HOURS of Video OR 80 HOURS of music playtime.

**Included Accessories:**

- Matching detachable & rotatable belt clip.
- Silicone protection sleeve.

**ONLY \$49.99**



Whatever iPod model you have, **NuPower** lets you run longer between recharges!



**newer technology**<sup>™</sup>  
<http://www.newertech.com>

\*Over Apple's original battery. iPod, MacBook, PowerBook and iBook are trademarks of Apple, Inc. No affiliation is implied or suggested. NuPower, NewerTech, and NewerTech arrow logo are registered trademarks of Newer Technology, Inc. The Newer Technology, Inc. logo, VIDEO+ and The Perfect Fit Solution logo are trademarks of Newer Technology, Inc.

To purchase NewerTech products, visit distributor:

**Other World Computing**

at [www.macsales.com](http://www.macsales.com) or (800)275-4576



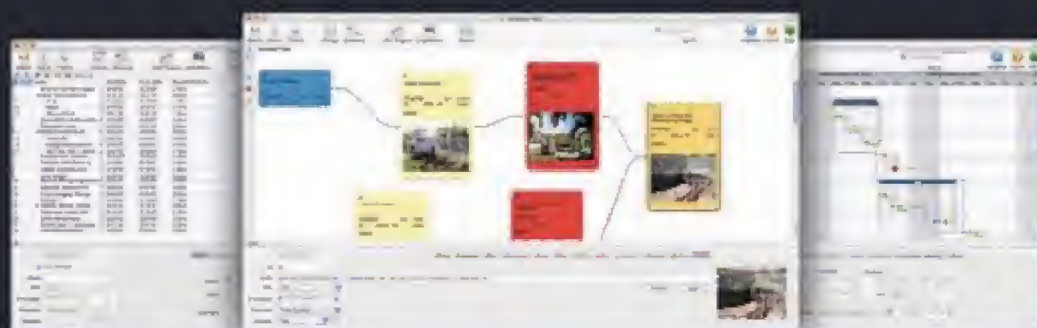


***"We must use time as a tool,  
not as a crutch."***

John F. Kennedy

While other project managers spend their time entering time and cost information so they can track their projects, you use **Project X's** unique Web App so your resources do the tedious data entry for you. One click instantly incorporates their timesheets, expense reports and other task information so you can spend your time where it counts—on managing your project!

Successful project management has never been so easy.



# Project X™

Project management for the rest of us.

Visit [www.projectx.com](http://www.projectx.com)  
to download your FREE trial today

**Macworld  
BEST  
OF SHOW  
2007**

Version 1.1.2 Now Available

**MARWARE**

Available at select Apple stores

# Macworld

**Senior Vice President/  
Group Publisher** Michael Carroll (508/370-0842)

**Publisher** Paul Zampitella (781/944-0528)

**Associate Publisher** Paul Bonarrigo (508/370-0844)

**Magazine Account  
Director, West** Leslie Piper (415/243-3509)

**Online Sales Manager, West** Jason Thach (760/736-9218)

**Account Manager, Showcase** Niki Stranz (415/243-3664)

**Ad Operations Specialist** Kenji Kawakami (415/243-3628)

**Sales Administration Manager** Roxanne Wernick (415/978-3298)

**Sales Associate** Cas McGee (415/243-3575)

**Senior Director, Marketing** Sandy Wong (415/978-3181)

**Marketing Specialist** Michelle Kloss (415/978-3380)

**Marketing Specialist** Rose Kwass (415/978-3168)

**Production Director** Steve Spingola

**Prepress Manager** Tamara Gargus

**Booking and Billing Manager** Ricardo Sandoval

**CTO** Aaron Jones

**Development Director** Bill Cappel

**Senior Vice President/  
General Manager, Online** Stephan Scherzer

**Vice President,  
Business Development** Ulla McGee

**Director, Business and  
Legal Affairs** Sue Krenk

**Director, Online Marketing** Alexa Wriggins

**Director,  
Business Development** Brian Bulzer

**Manager,  
Business Development** David Lake

**Online Community Manager** Kellie Parker

**VP, Human Resources** Kate Coldwell

**Director, Human Resources** Lisa Hess

**Human Resources Coordinator** Ellen Malinowski

**Director, Consumer Marketing** David Cobb

**Newsstand Director** Holly Drawbaugh

**Director, Retention Marketing** Lisa Radler

**Senior Manager,  
Retention Marketing** Robyn Patty

**Retention Marketing  
Coordinator** Shavon Burden

**Director, Subscription  
Acquisition** Linda Trinh

**Subscription Marketing  
Manager** Jennifer Ma

**CFO** Vicki Peilen

**Director, Finance** Diane Ryczek

**Director, Accounting** Michelle Reyes

**Staff Accountants** Jennifer Huey,  
Scott Lum-Duenas

## HOW TO CONTACT MACWORLD STAFF

Our offices are located at 501 Second Street, 6th Floor, San Francisco, CA 94107; phone, 415/243-0505; fax, 415/243-3545. *Macworld* staff can be reached by e-mail at [firstname\\_lastname@macworld.com](mailto:firstname_lastname@macworld.com).

## LETTERS TO THE EDITOR

Send comments about any aspect of *Macworld* to [letters@macworld.com](mailto:letters@macworld.com). Due to the high volume of mail we receive, we can't respond to each letter. We reserve the right to edit all submissions. Letters published in *Macworld* or on *Macworld.com* become the property of Mac Publishing.

## BACK ISSUES OF MACWORLD

Starting with the March 2003 *Macworld*, back issues can be downloaded in digital format, from [www.zinio.com](http://www.zinio.com) (\$6.99; Mac OS X 10.1 or later required). Print-format back issues (subject to availability) cost \$8 per issue for U.S. delivery, \$12 for international delivery; prepayment in U.S. currency to *Macworld* is required. Send a check or money order to *Macworld* Back Issues, P.O. Box 37781, Boone, IA 50037-0781; or phone 800/288-6848 (U.S. and Canada) or 515/243-3273 (all other locations).

## REPRINTS AND PERMISSIONS

You must have permission before reproducing any material from *Macworld*. Write to *Macworld* Reprints and Permissions, 501 Second Street, 6th Floor, San Francisco, CA 94107; include a phone number. To order reprints of your company's editorial coverage, call Reprint Management Services at 717/399-1900; fax 717/399-9900; or e-mail [macworld@reprintbuyer.com](mailto:macworld@reprintbuyer.com).

## MAILING LISTS

We periodically make lists of our customers available to mailers of goods and services that may interest you. If you do not wish to receive such mailings, please write to us at *Macworld*, P.O. Box 37781, Boone, IA 50037-0781, or e-mail us at [subhelp@macworld.com](mailto:subhelp@macworld.com). Please include a copy of your mailing label or your full name and address.

## MACWORLD CONFERENCE & EXPO

As the flagship sponsor of Macworld Conference & Expo, *Macworld* encourages all subscribers to attend this exciting annual industry event. For information, please visit [www.macworldexpo.com](http://www.macworldexpo.com).

**BPA**



# GRIFFIN



## iPhone™ Cases

Carry your iPhone the way you want...

Holster, clear hardshell, armband, quick access snap-in, or full-coverage leather sleeve – Griffin's got your iPhone covered



**Amplifi™** Tabletop jukebox



**iTrip® Auto** Your iPod on your car stereo

Buy now at [www.griffintechology.com](http://www.griffintechology.com)



# The Digital Darkroom

Plus: Backlit LED displays and lessons in arithmetic

## Aperture versus Lightroom

I just read with great interest your comparison between Apple's Aperture and Adobe's Lightroom ("The New Digital Darkroom," July 2007). It seems to me that you left out the most important difference between the two: their hardware requirements. I downloaded the Aperture demo and attempted to use it on my 1.67GHz PowerBook G4, even though the company states that a G5 or Intel Mac is the preferred platform. Aperture crawled on my PowerBook. It took forever to import Raw images and load those images for editing, and in general it was very sluggish. Lightroom, on the other hand, seems like it was made for older Macs. Downloading, loading, and editing happened quickly. I bought Lightroom for those reasons and for its integration with Adobe Photoshop. The hardware issue

could be the thing that makes someone choose one piece of software over the other—especially since they're so close in terms of what they do.

✉ **Paul Papanek**



The hardware requirements for Aperture are certainly more stringent than those for Lightroom. But both products will tax your system regardless of your processor, particularly as your library grows.—Rick LePage

## The Other Advantage

Your article on Apple's use of LED backlit

displays ("LED-Backlit

Displays Coming Soon," *Mac Beat*, July 2007) missed a key point about this issue: battery life. It's been reported that in some testing, LED displays increased battery life up to 11 times. That means no batteries dying during important Skype calls or PowerPoint presentations, or while you're watching DVDs on a plane.

✉ **Harrison Roday**

## Safari's Incompatibilities

One thing Safari needs to get right is compatibility with secure sections of Internet commerce sites. Several times, when trying to make a purchase via the Internet, I've been stonewalled on the last link before checking out, and Safari has just given up on me. So I start all over again using Mozilla Firefox instead, my transaction goes through, and then I switch back. It's a pain, but I hold out hope that Apple will work it out . . . sometime soon. If Internet Explorer and Firefox can do it, then why can't Safari?

✉ **Michael Martin**

## All the Way to 11

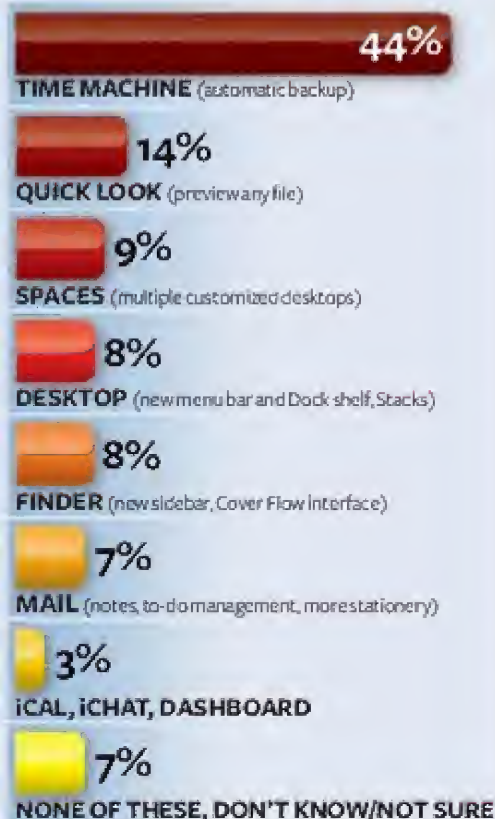
Somewhere between the time you polled readers about their plans to upgrade to Leopard and the appearance of that poll's results in the July *Feedback*, the number of respondents grew: according to your pie chart, 125 percent of respondents indicated that they were going to do something or other about Leopard. Now that's enthusiasm!

✉ **Rob Gillespie**

Please accept our apologies for that typographical error. "I don't have plans to upgrade at this time" should have read 11 percent, not 36 percent.—Dan Miller

## READER POLL

Which of Leopard's new features or improvements are you most excited about?



Source: Karlin Associates

MAGAZINE PHOTOGRAPH BY PETER BELANGER

## Contact Us

✉ Post comments on our forums ([www.macworld.com](http://www.macworld.com)); send them by mail to ✉ Letters, *Macworld*, 501 Second Street, 6th Floor, San Francisco, CA 94107; or send them by e-mail to [letters@macworld.com](mailto:letters@macworld.com). Include a return address and daytime phone number. Due to the high volume of mail we receive, we can't respond personally to each letter. We reserve the right to edit all letters and posts. All published letters and forum comments become the property of *Macworld*.



# What a day...



...I managed to store 7GB of anaconda photos before being stuffed into a backpack with camera lenses and water bottles. Then I got manhandled by spider monkeys under a Brazil nut tree. Later, an MP3 player drowned crossing Río Apurímac—luckily, I have her 30GB music library backed up.

Storage provisions at 100GB—plenty for Machu Picchu tomorrow. Then, the Amazon.

**LaCie Rugged Hard Disk**  
Triple Interface | 120GB–160GB



[www.lacie.com](http://www.lacie.com)

1 GB = 1,000,000,000 bytes. Total accessible capacity varies depending upon operating environment (typically 5–10% less). The LaCie logo is a trademark of LaCie. © 2007 LaCie. All rights reserved.





[ Enter Promo Code MCW21007 for a **FREE T-SHIRT** with these items ]



**THE ONLY THING WE'RE GUILTY OF...  
IS OUTRAGEOUSLY *FAST SHIPPING.***

99% OF ORDERS SHIP WITHIN 1 BUSINESS DAY

**BookEndz**



**\$299.99**

**BookEndz BE-MBP15F  
Docking Station for 15"  
MacBook Pro**



**Western Digital \$378.99**  
**WDG2TP10000N**  
My Book Pro II 1TB 7200 RPM  
USB 2.0 / IEEE 1394a / 1394b



**Western Digital \$109.99**  
**WD5000AAKS**  
500GB 7200 RPM 16MB Cache  
SATA 3.0Gb/s Hard Drive - OEM

**NETGEAR**



**\$129.99**

**Netgear WNR854T**  
IEEE802.11n draft specification  
Wireless Router

**XtremeMac**



(iPod not included)

**\$39.99**

**XtremeMac IPN-MIC-20**  
MicroMemo Recorder for iPod  
nano 2nd generation 2G Silver



**NO PAYMENTS FOR 6 MONTHS**

with your **Newegg.com Preferred Account**  
See website for more information. Promotion ends 11/30/07





&lt; m

**DUICKERTEN**

elgato

**speck**

**speck**



**Speck Products IV-BLACK-TS**  
Tough Skin with belt clip for Ipod video  
30/60GB

 Kensington

Student not instructed

中国出版集团



**GRIFFIN**



**GRIFFIN**

 XtremeMac XtremeMac

*†*Not rest included.

 XtremeMac

Not included?

**Macally iVocelll**  
Voice recorder via 30-pin connector  
Microphone for 2nd generation iPod nano



# Mac Beat



BUSINESS

## Apple's Record Sales

Earnings show best Mac quarter ever

**W**e write a lot these days about all the things Apple makes that aren't the Mac, but the Mac business has never been better than it is right now. For the fiscal quarter ending June 30, 2007, Apple had record Mac sales—and continued iPod sales growth—for an \$818 million profit. Meanwhile, the company sold 270,000 iPhones in the first 30 hours after the mobile device's June 29 release. Overall, the company saw \$5.41 billion in sales, a 24 percent increase from the same quarter a year ago.

During the third quarter, Apple shipped more than 1.7 million Macs, a 33 percent increase in the amount it shipped in the third quarter of 2006, and 2.5 times the industry-wide growth

rate, according to market-research firm IDC. More significantly, Apple's third-quarter Mac sales marked a record for the company, topping the previous quarterly high of 1.61 million Macs shipped during the fourth quarter of 2006. That's four straight quarters in which Apple has sold more than \$2 billion worth of Macs.

### Desktops versus Laptops

Much of the growth in Mac sales came from Apple's laptop business. While there was a rise in desktop sales for the quarter—634,000 units compared with 529,000 for the same period in 2006, bolstered by the arrival of Final Cut Studio 2 and Adobe Creative Suite 3—laptop unit sales skyrocketed 42 percent, to 1.13 million portables. All told, 64 percent of

the Macs sold during the quarter were laptops. This growth is especially interesting because recent Mac releases have been essentially relegated to speed bumps of existing products (the new iMac came out after the quarter ended).

In early 2005 Apple was selling less than half a million Mac laptops per quarter. But in this last three-month period, the company sold 1.1 million MacBooks, the most laptops Apple has ever sold in a single quarter. In the past year, 61 percent of all Macs sold have been laptops (back in early 2005, the numbers were reversed—60 percent of Macs sold in the first quarter of 2005 were desktops).

"It was a great quarter for those product lines," says Ross Rubin, director of

PHOTOGRAPH BY CHRIS HONDROS/GETTY IMAGES



analysis at the NPD Group, a market-research firm. "It seems like they are firing on all cylinders right now."

Clearly, the power and portability of Apple's laptop lines provide customers with what they're looking for in a Mac more than the desktop lineup. Until recently, the iMac design hadn't changed for three years, and the Mac Pro's audience remains limited. The new desktop releases, however, may bring Apple's sales numbers into balance (see page 54 for our review of the new iMacs).

### The iPod and iPhone

While Mac products and services made up 60 percent of the company's total quarterly revenue, Apple also sold more than 9.8 million iPods—a 21 percent increase from the same quarter a year ago. Apple says that the iPod enjoys a 71.5 percent share of the MP3 market, based on figures from NPD. This comes even when we've seen no big innovation in the iPod since October 2005.

The highly anticipated iPhone went on sale June 29, the next-to-last day of the third quarter. In the wake of the iPhone's opening weekend, with press reports of huge lines at Apple and AT&T stores, analysts upped their opening weekend sales forecasts to as high as 700,000.

AT&T announced that customers activated only 146,000 iPhones during that period, but Apple reported 270,000 units sold in the 30 hours of the quarter

during which the iPhone was on sale. Or to put it another way, from 6 p.m. Eastern on June 29, up until the clock struck midnight to usher in July 1, 150 people were buying an iPhone every minute. Apple suggested that AT&T activation woes were at fault for most of the 124,000 iPhones that were sold but not activated within that 30-hour period, although phones purchased for resale would also be included in that number.

"AT&T said more iPhones were sold in the first weekend than they had sold in the first month of any other wireless device in their entire history," Apple chief operating officer Tim Cook told analysts during a conference call.

So while the actual number of iPhones sold was below inflated estimates, those numbers hardly conjure up images of tumbleweeds blowing through Apple Stores during that opening weekend.

"To sell 270,000 is staggering—the launch was clearly a success," says JupiterResearch vice president and research director Michael Gartenberg. "The real challenge is what happens now, and that's all that matters."

Rubin agrees, contrasting the iPhone's launch with that of a Hollywood blockbuster. "This isn't like a movie where the opening weekend is a strong predictor of overall success," Rubin says. "The launch numbers are blunted because of the realities of most consumers considering a new phone only when their contracts are up."

Apple expects to sell its 1 millionth iPhone by the quarter ending in September. In contrast, it took the company seven quarters to sell its 1 millionth iPod. The company says that it's still on track to meet the goal spelled out by Apple CEO Steve Jobs to sell 10 million iPhones by 2008. (Apple's COO Cook also noted that Apple "saw absolutely no evidence" of iPod cannibalization during the quarter—no indication that users purchasing iPhones might otherwise buy an iPod).

"The company is on fire, period," says JupiterResearch's Gartenberg. ☒

Macworld.com news director **Jim Dalrymple**, Macworld.com executive editor **Philip Michaels**, and Macworld editorial director **Jason Snell** contributed to this story.

## NEWS IN BRIEF

### Intel Breaking European Antitrust Rules?

The European Commission has accused Intel of abusing its dominant position in the micro-processor market to exclude its rival Advanced Micro Devices, in breach of European antitrust rules. The Commission sent Intel a Statement of Objections giving the company ten weeks to reply. A Statement of Objections is a formal accusation of antitrust violations. Intel abused its position in three ways, according to the Commission: by offering rebates to PC manufacturers that buy the majority of their processors from Intel; by making payments to some manufacturers to encourage them to delay or cancel products using AMD processors; and by selling processors below cost when bidding against AMD for contracts with server manufacturers.



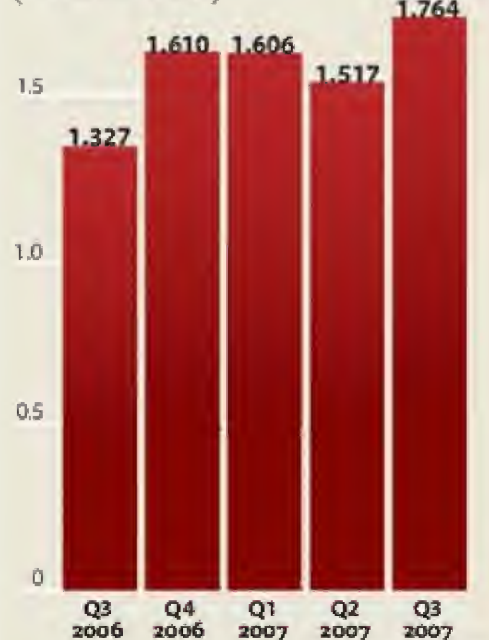
### Quark Lets Students Keep Educational Licenses

Quark announced that students worldwide who acquire their desktop publishing software QuarkXPress under educational licenses can continue to use the software commercially after they've graduated. QuarkXPress is commonly used in graphic design and publishing courses at design schools and colleges, but its educational licensing has been restricted for use only while the student remains a student. Now students can use those same copies of QuarkXPress—less than \$200 to purchase as students as opposed to \$750 for a full version—as they try to gain a foothold in the commercial world of design after they graduate. They can also use the educational copy of QuarkXPress to create commercial material while they're still enrolled. Students can upgrade to the latest version of QuarkXPress at the commercial upgrade price.



### Total Mac Sales

(in millions of units)





## PEOPLE

# Wozniak's Words

Apple cofounder talks about Steve Jobs, Apple

**S**teve Wozniak isn't perhaps as well known as his fellow Apple cofounder, Steve Jobs, but "Woz" invented the Apple I in 1976 and, in 1977, the Apple II, which was one of the best-selling PCs of that time. In this interview with Peter Moon, the 57-year-old Woz talks about how he met Jobs, his most cherished inventions, and more.

## On meeting and working with Steve Jobs:

We first met during my college years, while he was in high school. It was 1971 when a friend said, you should meet Steve Jobs, because he likes electronics and he also plays pranks. So he introduced us. We both loved electronics and the way we used to hook up digital chips. Very few people, especially back then, had any idea what chips were, how they worked, and what they could do. I had designed many computers, so I was way ahead of him in electronics and computer design, but we still had common interests. We [still] talk regularly but not much about things related to technology anymore.

## On leaving Apple:

Being the sort of designer I was, I was designing things all on my own, working alone, and now the company grew to a point that it had organized engineering departments. I could still hang around and do any project I felt like, but I wanted to do real things with people in order to change the world and bring new products. So I didn't leave Apple. I just went to start other companies, and I stayed in Apple as an employee. I never left being employed at Apple. Up to this day I still get a small paycheck to settle royalties.



## On his favorite inventions:

The Apple II was probably my greatest invention. I came up with a lot of very strange ideas of how to do things that were very complicated, but to do them very simply with very low cost and all in one computer. So many things in one computer that nobody ever expected—it set the tone for what a personal computer would be forever.

## On not licensing the Mac OS:

If Apple had licensed the operating system, would we still be as large and as good creating such great products? You can never look back and decide how the future would have turned out for Apple. . . . A lot of our biggest assets are customer loyalty, and a lot of customer loyalty comes from people who believe in what Apple was, partly because it was the company that made the whole thing, the operating system, the hardware, the application, services. . . . It's the greatness of products that come[s] through when we get control over all the aspects of the computer.



Read the complete interview at [macworld.com/](http://macworld.com/)

3010

## CREATIVE NOTES

### AmpliTube Jimi Hendrix Edition

Imitation is the sincerest form of flattery—especially for guitar players. Over the years, many of us have bought equipment similar to that of our heroes, trying to duplicate the tone mastered by players such as Eddie Van Halen and Eric Clapton. It doesn't necessarily make us any better players, but at least we sound good.

IK Multimedia ([www.ikmultimedia.com](http://www.ikmultimedia.com)) recently released AmpliTube Jimi Hendrix Edition, a \$249 guitar amplifier and effects-modeling application. The company did more than just try to model the sounds of Hendrix's gear from recordings. It teamed up with the family-owned foundation, Authentic Hendrix, and went out and purchased original versions of the gear that Hendrix used, in an attempt to model as closely as possible the tones found in the guitarist's setup.

The Jimi Hendrix Edition includes nine stomp models, four amp models, seven cabinet models, five microphone setups, and four rack effects—quite a bit of gear.

The package includes over 100 presets, organized by Hendrix's albums and songs, so they are easy to find. The designers even split the presets into rhythm and lead tones for each song. The included tones are remarkably authentic, with no digital artifacts.



### HARDWARE

**Wave**, from Logitech ([www.logitech.com](http://www.logitech.com)): Keyboard features U-shaped constant curve design, and a cushioned, contoured palm rest along with hot keys (corded version, \$50; cordless version with mouse, \$90).

**DataTraveler 100**, from Kingston Technology ([www.kingston.com](http://www.kingston.com)): USB thumbdrive, with capacities ranging from 1GB to 8GB, sports a capless design with the USB connector retracting into the casing (\$19 to \$116, depending on capacity).

**nQuicky PCI**, from QuickerTek ([www.quickertek.com](http://www.quickertek.com)): PCI expansion card adds 802.11n wireless networking speeds to Power Macs (\$150).

**PlatinumNAS Plus**, from MicroNet Technology ([www.micronet.com](http://www.micronet.com)): Network Attached Storage server features built-in iTunes server and capacities ranging from 1TB to 4TB (\$799 to \$2,999, depending on capacity).





## INSPIRED IN DESIGN. INSPIRED IN PRINTING.

You design because you're inspired. It shows in your best work. And your prints should express every ounce of that inspiration. That's why the HP Z series printers produce breakthrough color accuracy via a built-in spectrophotometer that analyzes color and calibrates it to match the media used. So you get accurate and consistent color print to print, media to media. And creating ICC color profiles is quick and easy. Plus the Designjet Z2100 boasts 8 Vivero pigmented inks that can match almost every color in the spectrum—for brilliant comps, layouts, contact sheets, mockups or exhibition prints. Do your inspirations justice like never before.



HP PHOTOSMART PRO B9180\*  
13" x 19" 8 Vivero pigmented  
inks desktop printer



HP DESIGNJET Z2100\*  
24" – 44" pedestal printer  
with 8 Vivero pigmented inks



HP DESIGNJET Z3100\*  
24" – 44" pedestal printer  
with 12 Vivero pigmented inks

Get up to \$1,075 mail-in rebate with the purchase of a select new HP Designjet Z series photo printer. Visit [www.hp.com/go/zhotdeals5](http://www.hp.com/go/zhotdeals5) for more information or to request a print sample.<sup>1</sup>

<sup>1</sup> HP Hot Deals promotion is open to U.S. residents only. HP Hot Deals promotion is available only for eligible purchases made during the promotion period of August 1, 2007–October 31, 2007. Additional restrictions apply. Void where prohibited, taxed, or restricted by law. For qualifying product options, full terms and conditions, and claim form, visit [www.hp.com/go/zhotdeals5](http://www.hp.com/go/zhotdeals5). \*Mac and PC fully compatible. © 2007 Hewlett-Packard Development Company, L.P. All rights reserved. The information contained herein is subject to change without notice. Some of the images are simulated.





# ultimate control

the new standard in portable midi control: ediol PCR-800/-500/-300



PCR-800



PCR-500



PCR-300



- 18 programmable velocity pads with Aftertouch
- 64/49/32 velocity-sensitive keys with Aftertouch
- "dynamic mapping"—intelligent assignment of controls
- 50 fully assignable controls, including dedicated transport buttons
- new, unique crossfader feature for use with DJ apps & motiondiver.tokyo



capture creativity  
www.rolandus.com/ediol

## MAC BEAT

### DATABASE

# FileMaker 9 Released

New version focuses on ease of use

In July, FileMaker ([www.filemaker.com](http://www.filemaker.com)) unveiled the latest version of its popular cross-platform database software, FileMaker 9—what the company calls its most dramatic offering in years. As with the FileMaker 8 and 8.5 releases, version 9 focuses on making tasks easier for customers to perform.

"Our goal was 20 minutes or less for a knowledge worker to be able to set up the server from start to finish," says Jon Sigler, FileMaker's vice president of product management.

Among the new features in FileMaker are a Quick Start screen for new users; Conditional Formatting, which highlights data based on user-specified parameters; and the ability to e-mail other FileMaker users a link that they can click on to access your database.



FileMaker Server 9 customers will enjoy some significant changes in the latest release, as well. A PHP Site Assistant wizard will help users build a Web site from two to eight pages, easing the burden of trying to build the site manually.

The server version has also undergone what FileMaker characterizes as the "most significant redesign of the server interface ever."

FileMaker can now connect to data stored in external SQL data sources, including MySQL, Oracle SQL, and Microsoft SQL Server.

For new users, FileMaker Pro 9 costs \$299 and FileMaker Pro 9 Advanced costs \$499.

FileMaker Server 9 costs \$999, and FileMaker Server 9 Advanced costs \$2,499. —JIM DALRYMPLE

## DIALOG BOX

"The iPhone with AT&T is kind of like a 'Hotel California' service. You can check out any time you like, but you can never leave."

Representative Ed Markey (D-Massachusetts), during a House subcommittee hearing

"The iTunes Store and the iPod have done more to change the way people listen to music than anything since the CD, and maybe since the sound recording."

Blender editor in chief Craig Marks, explaining why Steve Jobs topped its "Powergeek 25" list



"If I am being driven down the Vista route, then an Apple Mac is smarter money and cheaper."

Richard Snooks, chief information officer for real estate asset-management company Capital & Regional, in an interview with [silicon.com](http://silicon.com)

### SOFTWARE

**CrossOverMac 6.1**, from CodeWeavers ([www.codeweavers.com](http://www.codeweavers.com)): Windows-compatibility program for Intel-based Macs adds the ability for Microsoft Outlook users to work remotely, using RPC over HTTP (\$60).

**Skype 2.6**, from Skype ([www.skype.com](http://www.skype.com)): Voice over IP communication program adds a Call Transfer feature for transferring an ongoing call to another Skype user over a contact list (free).

PRODUCT WATCH





CDW has everything to concept, collaborate and create.  
Well, except the great ideas.



#### Apple® MacBook™ Pro

- Intel® Core™ 2 Duo Processor (2.20GHz)
- Memory: 2GB
- 120GB hard drive
- Slot-loading SuperDrive
- Built-in AirPort® Extreme and Bluetooth®
- Front Row and Apple® Remote included
- 15.4" widescreen display



Authorized  
Reseller

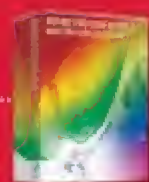
**\$1999**  
CDW 1234241



#### Apple Cinema HD Display®

- 23" digital widescreen LCD
- Panel brightness: 270 cd/m<sup>2</sup> (nits)
- Response time: 16ms
- Narrow bezel for virtually seamless multi-display arrangements
- One-year limited parts, labor and backlight warranty

\$899 CDW 659614



Licensing available<sup>1</sup>

#### Adobe® Creative Suite® 3 Master Collection<sup>2</sup>

- Highly integrated, exceptionally productive tools for designing print, Web, interactive, film, video and mobile content



#### For Mac®

Upgrade from any one Adobe® Suite	<b>\$2071.99</b>	CDW 1153115
Upgrade from any two Adobe® Suites	<b>\$1452.99</b>	CDW 1153114
Full version	<b>\$2629.99</b>	CDW 1153113

#### We're there with the Mac solutions you need.

You'd like to spend as much time as possible focusing on your creative work. We're there with the solutions that let you do just that. Our account managers can help you find the products you need to keep the creative process going faster and more efficiently. So call today for detailed answers to all your technology questions, and get back to focusing on what you really enjoy: creativity.

[CDW.com](http://CDW.com) | 800.ALL.MACS



The Right Technology. Right Away.™

<sup>1</sup>Adobe Open Options (AOO) volume licensing available; call your CDW account manager for details. <sup>2</sup>Includes Adobe InDesign CS3, Adobe Photoshop CS3 Extended, Adobe Illustrator CS3, Adobe Acrobat 8 Professional, Adobe Flash CS3 Professional, Adobe Dreamweaver CS3, Adobe Fireworks CS3, Adobe Contribute CS3, Adobe After Effects CS3 Professional, Adobe Premiere Pro CS3, Adobe Soundbooth CS3, Adobe Encore CS3, Adobe Bridge CS3, Adobe Version Cue CS3, Adobe Device Central CS3, Adobe Stock Photos, Adobe Acrobat Connect and Adobe Dynamic Link plus Adobe On Location CS3 and Ultra CS3. Offer subject to CDW's standard terms and conditions of sale, available at [CDW.com](http://CDW.com). ©2007 CDW Corporation



# The Must Haves.

Completely portable set of Essential References +

160 Classics of Literature, History, Philosophy, Math and Science, in one package

## Library Essentials

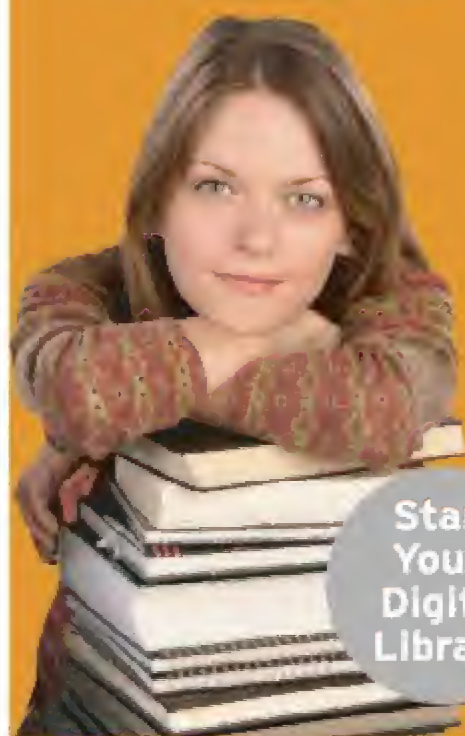


Includes: Houghton Mifflin's American Student Heritage Dictionary and Thesaurus, and Columbia Electronic Encyclopedia.

### Featured Authors:

Shakespeare • Melville • Eliot  
Emerson • Jefferson • Lincoln  
Alcott • Dickens • Hobbes  
Conrad • Hawthorne • Freud  
Thoreau • Shelley • Wells  
Nietzsche • Hippocrates  
Conrad • Crane • Cather

Get your copy at [www.vitalsource.com](http://www.vitalsource.com) or at your local Apple Store



Start Your Digital Library

## MAC BEAT

INTERNET

# iPhone Causes Wireless Problems?

Duke University mistakenly blames iPhone for network woes

**T**he iPhone has been getting a lot of publicity, but not all of it is good. A few weeks after the iPhone's release, Duke University said that the device's Wi-Fi connection was responsible for taking down between a dozen and 30 of the school's Cisco wireless access points at a time, due to the flood of connection requests coming from them.

In blaming the iPhone, Kevin Miller, assistant director of communications infrastructure with Duke's Office of Information Technology, said, "I don't believe it's a Cisco problem in any way, shape, or form."

The only problem with Miller's statement is that it was wrong. After blaming Apple's iPhone, Duke University said that a Cisco wireless access point was in fact at fault for the networking issues.

"Cisco worked closely with Duke and Apple to identify the source of this problem, which was caused by a Cisco-



based network issue," said Cisco in a statement.

In a statement posted to the university's Web site, Tracy Futhey, Duke's chief information officer, said that "Earlier reports that this was a problem with the iPhone have proved to be inaccurate." Futhey also said that the iPhone is fully operable within Duke's networking environment.—JIM DALRYMPLE

## TECH TRENDS

### The iPhone's Halo Effect

Marketers like to talk about the *halo effect*—the positive feelings a buyer may feel about one product because of favorable impressions of other offerings from the same company. A new study from ChangeWave Research shows that the iPhone may be extending its halo to Macs. Among consumers planning to buy new computers in the next 90 days, the percentage opting for Apple desktops and laptops jumped significantly in June.

—MARYANN JONES THOMPSON







## OPERATING SYSTEM

# Transparency Overkill?

New menu-bar effect may be too pretty

**W**hen Steve Jobs showed off Leopard at the Worldwide Developers Conference in June, one of the new features included in the revised Desktop is a semitransparent menu bar. It's clearly visible in the streaming video of the keynote, and in many of the screenshots on Apple's Web site.

I'm all for fancy effects, at least where it makes sense and might actually help the user. But in this case, I don't think it makes sense—look at many of Apple's own screenshots, and you'll see that certain entries in the menu bar are quite hard to read, owing to the bad mix of black text, a semitransparent background, and a

dark background image. Instead of being useful, it seems to me that—based on what's been shown, at least—the semitransparent menu bar will do nothing but annoy me when I try to find a menu item against a noncooperative background image.

Thankfully, Peter Maurer (author of Butler, Witch, and a number of other useful utilities) has already created a simple solution: Non-Transparent Menu Bar is a little program that draws a white half-rounded rectangle behind the menu-bar portion of the screen, but above the background image, thereby eliminating the menu-bar transparency. Maybe Apple will include a menu-bar preference in Leopard, as well.—**ROB GRIFFITHS**

## WIDGET OF THE MONTH

### Baseball 2.5

For fans of our national pastime, Andreas Amann's free Baseball widget provides an at-a-glance scoreboard of all the day's games. And if you choose your favorite team in the widget's settings, its games will be easier to find and you'll get a team-logo background as an added bonus ([macworld.com/3009](http://macworld.com/3009)).—**DAN FRAKES**

Middle of 5th Inning											24	Standings					
1	2	3	4	5	6	7	8	9	R	H	E	A	TEX	1	1	Mid 5	
1	0	0	0	0					1	3	0	S	CLE			4:05 PM	
0	0	0	1						1	3	1	H	PHI			4:05 PM	
													CIN				4:10 PM
PIT												LAD				5:05 PM	
CHC												NYG				5:30 PM	
DET												SD				6:05 PM	
FLA												OAK				7:05 PM	
ATL												SF					

## PRODUCT WATCH

### SOFTWARE

**ColdFusion 8**, from Adobe ([www.adobe.com](http://www.adobe.com)): Internet application-development software adds Server Monitor, to help developers identify code bottlenecks, and the ability to provide data to applications and frameworks that use Ajax (Standard, \$1,299; upgrade, \$649).

**FirstEdge 3**, from MYOB ([www.myob-us.com](http://www.myob-us.com)):

Updated entry-level accounting software aimed at small businesses adds native support for Intel-based Macs, undo account reconciliation, and new budget tools and reporting (\$99; upgrade, \$79).

"NoteBook is a must-have if you're using your computer as a true digital hub."

Tera Patricks, Mac360.com

"NoteBook is now open on my desktop all the time."

Shawn King, Host/Exec.  
Producer, Your Mac Life

# ACTIVATE YOUR IDEAS

download a FREE DEMO at  
[www.circusponies.com/demo](http://www.circusponies.com/demo)



**CIRCUS PONIES**  
**NOTEBOOK**  
organization for a creative mind

★★★★★  
Macworld UK

MacAddict RATED  
GREAT

Macworld  
★★★★★

NoteBook is available at:  
CompUSA and the Apple Store





## GAME BUZZ


**Gears of War Is Mac-Bound**

Gears of War, the popular third-person action game,

is coming to the Mac along with Unreal Tournament 3. Mark Rein, Epic Games' vice president and cofounder, revealed the news during an interview on Spike TV's *Game Head* show. Gears of War has elements of tactics and horror, putting you in the role of Marcus Fenix as he fights against the Locust Horde, a nightmarish group of creatures. The game is powered by Epic's Unreal Engine 3, which is being used to develop Unreal Tournament 3—formerly known as Unreal Tournament 2007—slated for a Christmas 2007 debut on some game platforms. No official Mac release date is available yet ([www.epicgames.com](http://www.epicgames.com)). —PETER COHEN

## iPOD

# I Want Buttons

Why the next iPod shouldn't be like the iPhone

**W**hen Steve Jobs introduced the iPhone, he said it was the “best iPod ever.” In many ways, he was right—the larger screen and touch-screen content browsing are stellar. On the other hand, the iPhone also has something in common with the worst iPod ever, the third-generation (3G) model: touch-sensitive playback controls.

Don't get me wrong; touch-sensitive controls can be very cool, and very effective—witness the iPhone's overall interface. But when it comes to portable music players, there are times, such as when the player is in your pocket, when these controls are a major hassle.

For starters, there's the whole “Oops, I didn't mean to touch that” thing, when

you stick your hand in your pocket or bag and accidentally brush against a control, skipping tracks or, even worse, turning the volume all the way up.

But even more problematic are situations in which you want to do something—for example, skip to the next track—but the iPod is out of sight. With physical controls, you can feel around for the right button and press it. With touch-sensitive buttons, that's not an option. This is bad enough when the controls are touch-sensitive and tactile, as on the 3G iPod—you end up accidentally pressing random buttons while trying to feel around for a particular one. It's even worse when all the controls are part of a single, flat surface—you have no other choice but to pull the player out, turn



**STARDOM®**  
STORAGE SOLUTIONS



**ST7610**



**High Performance 3Gb/s Port-Multiplier eSATA**

**High Capacity compatible to 1TB Drives**

**High Speed for HD**  
Storage for Creative Professionals





**ST6600**

Powered by Raidon Technology Inc. [www.stardom.com.tw/dvs](http://www.stardom.com.tw/dvs)





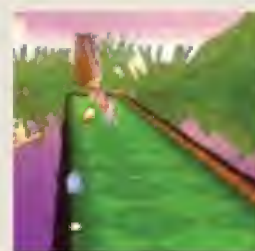
**iPod Buttons** Except for the 3G iPod (middle), the button-rich music player makes for easier use.

on its screen, and visually locate the desired on-screen button.

This isn't just idle criticism. As much as I love the iPod section of the iPhone, after using it for a month, I'm already frequently annoyed by this drawback. Sure, the iPhone's earbuds include an inline controller, but it provides only the most basic functions. Any good media player must have a

few essential physical controls: play and pause, volume up and down, forward and back, and hold. And these buttons must be usable by feel. With rumors of upcoming touch-screen iPods multiplying by the minute, here's hoping that Apple doesn't go overboard with the whole "Ooh, look at the touch screen!" thing, and makes the next iPod both drool-worthy and usable. —DAN FRANKS

## GAME BUZZ



### Tiki Magic Mini Golf

Freeverse has announced the release of Tiki Magic Mini Golf, a new

game for OS X and Windows. The \$30 3-D action game features three different courses—the tropical paradise of Lono's Lagoon, the Lost Temple, and a volcanic region called Fire Mountain. You can play solo or against as many as five friends, with a total of 54 holes. The Universal version of Tiki Magic includes Sweet Shot replays that show you your best shots over again, a custom soundtrack, totem masks to help you add some personality to your game, and power-ups that imbue you with special abilities. The game was originally developed by Mondo Robot using OTEE's Unity 3-D game engine ([www.freeverse.com](http://www.freeverse.com)). —PETER COHEN

# Maximize Your Mac

Increase Your Performance with Techworks Memory



Fast and reliable, TechWorks has been the trusted name in providing a full line of memory products guaranteed for Mac computers since 1986.



Other World Computing  
[www.otherworld.com](http://www.otherworld.com)

TigerDirect.com

[www.buffalotech.com/products/memory](http://www.buffalotech.com/products/memory)

© Buffalo Technology (USA), Inc. Buffalo Technology, the Buffalo logo and the Techworks logo are either trademarks or registered trademarks of Buffalo Technology (Buffalo Inc.). The names and logos of other companies mentioned herein belong to their respective owners.

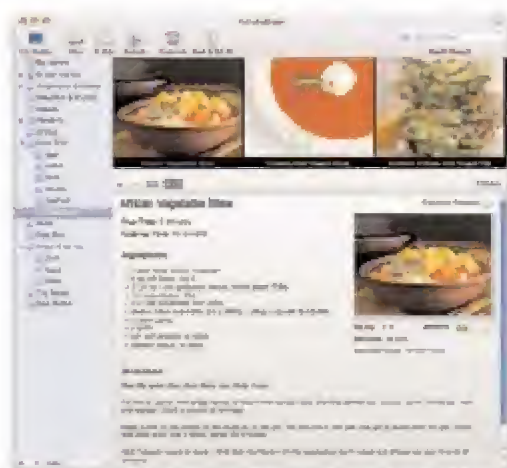
# BUFFALO

STORAGE WIRELESS MULTIMEDIA MEMORY



# Hot Stuff

What we're raving about this month



## YummySoup 1.5

As a strict vegetarian, I have some pretty hefty requirements when it comes to recipes, and those extend to the software I use to keep them all together. While there are numerous recipe programs out there, I really like Hungry Seacow Software's \$20 YummySoup 1.5, a flexible, Mac-like program that makes quick work of importing, viewing, and sharing recipes. Its clean interface, which offers many automated and smart features, is downright appetizing. An adjustable, iTunes-style sidebar lets you add or delete meal categories in groups or smart groups. You can incorporate your grocery list, and even your cocktails and beverages. Best of all, the program lets you import recipes from online sources such as All-Recipes.com, Delia Online, Epicurious, and others ([hungryseacow.com](http://hungryseacow.com)).—**JACKIE DOVE**

## Jawbone Bluetooth Headset

One of the most useful accessories for the iPhone is a Bluetooth headset. I chose Aliph's \$120 Jawbone model because its noise-cancellation features were supposed to be better than those of any other headset on the market. I've tried a lot of headphones over the years and they all claim to be the best, so I took Aliph's marketing with a grain of salt. After using it for a few weeks, though, I can say that it is one of the few products that live up to their hype (rather like the iPhone). The Jawbone's noise cancellation is second to none, and the device even has a button that you can use to turn off the noise-cancellation feature and hear the ambient noise. Unlike most other headsets, the Jawbone lacks a volume button—it dynamically adjusts the volume depending on the environment ([www.jawbone.com](http://www.jawbone.com)).—**JIM DALRYMPLE**



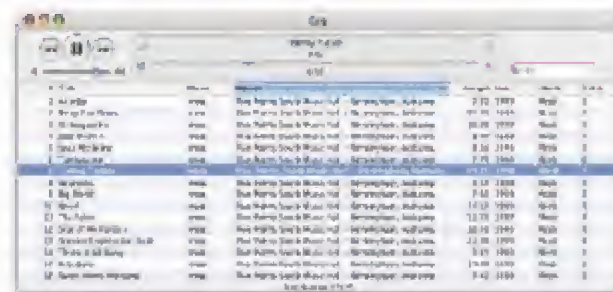
## Simplify Media

The music-sharing feature in iTunes has always been one of my favorites. Since iTunes limits music sharing to local networks, though, the free Simplify Media software (currently in beta, from the company of the same name) might be your ticket if



you want to share iTunes 6 or 7 libraries over the Internet. Running Simplify Media on your work and home computers, for example (it works on Macs and PCs), means that you have access to your

music in either place ([www.simplifymedia.com](http://www.simplifymedia.com)).—**KATE MARSHALL**



## Cog

I like listening to music while I work, but most of the time I don't use iTunes. That's because much of my aural enjoyment comes from downloaded lossless concert files—in formats that iTunes can't understand. For years I've been using MacAmp Lite X, which ceased development not long after I started using it. So lately I've been checking out Vincent Spader's free Cog. This cool (and Universal) music player handles iTunes-friendly file types such as AAC, AIFF, Apple Lossless, MP3, and WAV, but also plays FLAC, Monkey's Audio (.ape), and Shorten (.shn) files—the most-common lossless compression formats you're likely to come across. Cog also has a few nifty features, including gapless playback, customizable systemwide hot keys for playback control, a file drawer, support for the Apple Remote, and integration with Last.fm ([cogx.org](http://cogx.org)).—**JONATHAN SEFF**

## PXC 450

If you think Bose's well-known noise-canceling headphones are expensive at \$349, avert your eyes; Sennheiser's PXC 450 headset costs a whopping \$450. But for frequent travelers, the PCX 450 may make up for its high price with features and versatility. The design is comfortable for long flights, yet the set folds flat for packing; the noise-canceling (NC) circuitry works impressively well; in-flight sound quality ranks up there with that of the best NC headphones. But what struck me the most is that it's the first NC headset I've used that offers great sound quality with the NC circuitry disabled—so instead of sticking the headphones in a drawer between flights, you'll want to keep them on your head ([www.sennheiserusa.com](http://www.sennheiserusa.com)).—**DAN FRANKS**





# SANYO



## stunning**design** stunning**capabilities**

Capture stunning details with the new SANYO Xacti HD1000. Capable of recording full 1080i HD video, it's the latest in the award winning Xacti line by SANYO.

- Full 1080i HD Recording
- 10x Optical (f/1.8) HD Zoom Lens
- 4MP Still Photos
- 2.7-Inch Widescreen Display
- Advanced MPEG-4 AVC/H.264 Format
- Records Directly to SDHC Memory Cards

[www.sanyodigital.com](http://www.sanyodigital.com)

©2007 SANYO Fisher Company. Photos are simulated and do not represent actual quality. All rights reserved.  
Go to [www.sanyodigital.com](http://www.sanyodigital.com) to learn more. Memory Card sold separately.

# HD1000

## Xacti



We know you're always on the go

( along with your Mac, iPod and iPhone )

**Expandable Trek BackPack**  
*from Brenthaven*



**Journi Mobile Speaker System**  
*from Griffin*



**Signature Suit**  
*from Case-mate*  
Protect your laptop in  
luxurious leather.



**Laptop Armor**  
*from Matias*  
Keep your precious  
cargo safe from drops.



**Treadz**  
*from ifrogz*  
Hit the road with this  
sturdy textured case.



**Outdoor Case**  
*from H2O Audio*  
Take your nano on the  
trail, even if it's muddy.



## Maximize your mobility.

Whether you're commuting, on business travel, or just taking a road trip, we know that you need your electronic gear to come along with you. At Dr. Bott, we have plenty of products that will enable you to carry, protect and enjoy your Mac, iPod and iPhone, no matter what road you travel.

### Sidewinder for iPhone from Marware



**Jawbone Headset**  
*from Aliph*  
Eliminate background noise during iPhone use.



**Sport Armband**  
*from Belkin*  
Wear your iPhone when you're on the run.



**Quick Vue**  
*from Marware*  
Flip open this case for a quick iPhone view.



**mPOUCH-PH**  
*from Macally*  
Carry this iPhone case that doubles as a stand.

Dr. Bott distributes compelling Mac, iPod and iPhone products to resellers worldwide.  
Find a reseller at <http://www.drbott.com/local> • Or call 800.541.1167  
Check out Dr. Bott's Reseller Blog at <http://www.drbott.com/blog>



# Reviews



## Mac, Camera, Action!

Adobe's Production Premium restores Premiere Pro and introduces Soundbooth

**A**dobe's Creative Suite 3 Production Premium is unique among the CS3 bundles in several respects. It features the return of an old favorite and the introduction of a newcomer—Premiere and Soundbooth, respectively—and it is the only suite to feature Intel-only programs. Premiere (now called Premiere Pro), back on the Mac after a five-year hiatus, returns as an Intel-only application targeted at professional videographers. With Premiere Pro you also get OnLocation CS3, a Boot Camp-only program for which you need Windows, and Encore CS3. Soundbooth CS3, an audio application geared toward videographers, is also Intel-only and features extensive integration with both Pre-

miere Pro and Flash CS3 Professional. After Effects CS3 Professional retains much of its original character and interface, but is interoperable with Premiere Pro and Encore via the Dynamic Link feature. The main video programs in the bundle are also available separately. The CS3 Production Premium is extensive: In addition to the video applications, it includes Photoshop CS3 Extended (★★★★½; [macworld.com/2758](http://macworld.com/2758)), Illustrator CS3 (★★★★½; [macworld.com/2760](http://macworld.com/2760)), Flash CS3 Professional (★★★★½; [macworld.com/2764](http://macworld.com/2764)), Bridge CS3 ([macworld.com/2759](http://macworld.com/2759)), and Device Central CS3. The bundle costs \$1,699 (an upgrade from a previous version of a suite application is \$1,199), and the boxed set includes printed documentation.

**Find It Online** Longer reviews of these products are available on our Web site at the following addresses:



**Premiere Pro CS3**  
[macworld.com/3023](http://macworld.com/3023)



**Soundbooth CS3**  
[macworld.com/3015](http://macworld.com/3015)



**After Effects CS3 Pro**  
[macworld.com/3022](http://macworld.com/3022)



# Premiere Pro CS3

Adobe's video-editing software returns to the Mac **BY ANTONY BOLANTE**

If you remember Adobe Premiere 6.5 (★★★★; [macworld.com/2963](http://macworld.com/2963)), the first thing that will strike you about Premiere Pro CS3 is that it's an entirely different animal.

Premiere Pro CS3 has none of Premiere 6.5's fundamental flaws. It has an efficient interface, employs a more elegant paradigm for transitions, supports multiple and nested sequences, and takes a unified approach to creating effects. Notable new features include multiple-camera editing, audio mixing with surround-sound support, and the ability to encode for Blu-ray discs.

Now that Macs run on Intel processors, Adobe is eager to reintroduce its flagship video-editing software to the Mac operating system.

Premiere Pro CS3 has all the core features that professional video editors need. Until it finds a way to more clearly distinguish itself from other video programs, however, Premiere Pro's appeal will lie primarily in its relationship to the other programs in the CS3 Production Premium suite.

## Family Ties

Generally speaking, video editors don't wed a workflow to an individual editing program; instead, they tend to use a family of software products. Apple devotees, for example, don't have a choice: the company's video-editing software is available only as part of Final Cut Studio 2. The cross-platform Avid Xpress Pro (★★★★; [macworld.com/2964](http://macworld.com/2964)) offers a clear upgrade path to the rest of Avid's product line, which has long dominated high-end postproduction. And the program is compatible with Digidesign's popular Pro Tools audio editor (not surprisingly, since Digidesign is an Avid subsidiary). But Avid Xpress Pro is much more expensive than Adobe's video suite. CS3 Production Premium is a bit pricier than Apple's Final Cut Studio—but along with Mac newcomers Premiere Pro,

Encore, and Soundbooth (★★★★; page 38), it includes the venerable Illustrator, Photoshop Extended, After Effects Professional, and Flash. (Only the Windows version of the CS3 suite includes Ultra, Adobe's new keying software.)

Premiere Pro ships with Encore, for DVD authoring, and OnLocation, software that turns your laptop computer into a field monitor and direct-to-disc capture device. Unfortunately, OnLocation runs only via Boot Camp. But until Adobe makes the Mac and Windows packages equal, Mac users may rightly feel neglected.

Otherwise, compatibility with the rest of the CS3 family is one of Premiere Pro's strong suits. Like the Adobe CS3 design and Web applications, it utilizes Bridge as the command center for browsing and managing assets and communicating between applications. Premiere Pro includes commands for launching Photoshop and for exporting to Encore and Soundbooth. One of the most dramatic examples of the benefits of integration is the Dynamic Link feature, which is used to tie Premiere Pro to After Effects.

## Premiere Pro CS3



**PROS:** Includes multiple and nested sequences, a standard approach to transitions, and unified effects; efficient interface; surround-sound support; many export options; ships with Encore; Dynamic Link integrates nicely with After Effects; Clip Notes feature aids review process.

**CONS:** No Mac version of OnLocation; no scene detection or Capture-panel monitoring when capturing HDV; built-in titler lacks character-based text animation; lacks OMF-export capability; no batch rendering; Trim-panel edits not fully interactive.

**OS X COMPATIBILITY:** 10.4 (Tiger)

**PROCESSOR COMPATIBILITY:** Intel

**PRICE:** \$799; upgrade, \$299

**COMPANY:** Adobe Systems, [www.adobe.com](http://www.adobe.com)

## Interface

Like other CS3 programs, Premiere Pro has dispensed with traditional windows and palettes in favor of tabbed panels docked in a system of interdependent panes that use screen space much more efficiently. But in some instances, Premiere Pro departs from tabbed panels.



**Flexible Interface** Premiere Pro CS3 employs an efficient tabbed-panel interface, but if you want, you can open bins in separate floating windows (as seen above).



Because floating panels perform specialized tasks—such as video capture, title creation, and trimming—their appearing as separate items doesn't hinder the workflow. However, these inconsistencies make the new version feel a little less fluid than I would like.

### Capture

In Premiere Pro CS3, capturing video from tape is a straightforward and intuitive process. But when you're capturing from HDV, scene detection is disabled. Moreover, on the Mac, you can't monitor HDV in the Capture panel's image area; you have to use the device's video display or an attached monitor. Premiere Pro lacks full native support for some popular HD formats—for example, AVCHD and DVCPro HD. And so far, only the Windows version lets you import directly from Sony's XDCAM or Panasonic's P2 camcorders.

### Bins

The video assets you capture or import are listed in Premiere Pro's Project panel. You can sort the items by any of a number of categories and organize them into bins. You can open bins in separate

panels and specify whether they are to be floating or docked. This capability is particularly useful for projects that have many clips and for editors who like to lay out all their clips at once. The Project panel's well-integrated search features help you locate specific clips.

### Editing

The current version deserves its Pro appellation. Following an elegant, industry-standard model, Premiere Pro's timeline depicts clips and transitions in a single track, and allows any track to contain transitions.

Premiere Pro supports both multiple sequences and nested sequences. You can use nested sequences to synchronize footage for editing into multiple-camera sequences, which are easy to assemble and adjust. Drag-and-drop and timeline-editing features are intuitive and efficient. And Premiere Pro provides ample visual feedback while you make editing adjustments.

The Trim panel works well for fine-tuning a cut, but it could be more seamlessly integrated into the main interface, rather than opening separately. And it'd be great if the last

adjustment would play without interruption the next time the cut looped.

### Media Management

Avid's (and, to a lesser degree, Apple's) editing packages establish a trailhead that puts users on a relatively clear path to the companies' high-end software and hardware packages. These are aimed at postproduction environments with vast collections of assets shared among multiple users and projects. With Premiere Pro, the path to the high end isn't quite as obvious—Adobe partners with other companies to address the needs of this market.

Premiere Pro editors working in simpler settings probably won't encounter problems. Commands let you link and unlink clips to and from media. Bridge provides a central location for viewing and managing, and it lays the groundwork for even more integrated media-management features in the future.

### Audio

Premiere Pro CS3 supports clip-based audio mixing in the timeline and track-based audio mixing via the full-featured Audio Mixer panel. With the proper sound card and speakers, you can mix for 5.1 surround sound. Premiere Pro interacts smoothly with Adobe's Soundbooth audio editor, but because it can't export OMF (Open Media Framework) files, transferring audio for finishing in the industry-standard Pro Tools is difficult.

### Titling

Premiere Pro's titling feature provides all the typesetting tools you'll typically require. You can also animate a title as you would any clip, by keyframing its motion properties. For complex or character-based animations, you'll have to use After Effects' impressive text-animation features.

### Transitions and Effects

Whereas older incarnations of Premiere had separate modules and procedures for transitions, motion effects, and filters, Premiere Pro CS3 takes a unified approach. All effects can be animated, via many of the same keyframing procedures found in After Effects. Premiere Pro has inherited other useful features



**Collaboration Tool** With Clip Notes, reviewers can enter comments in a PDF that contains (or links to) a draft of a work in progress. Imported comments appear as markers in the sequence's timeline.





# Boat.

Some misperceptions take time to die.

This one will take less than seven seconds.

That's how long a Volkswagen Passat 2.0 Turbo takes to reach 60 mph. Faster than the BMW 525i, Lexus IS 250 and Mercedes C230<sup>†</sup>.

And yet it somehow manages to best them all in fuel efficiency as well—delivering up to 6mpg more!<sup>\*\*</sup>

Not your typical luxury liner. Although it does offer a boatload of performance features, like four-corner independent suspension, push-start ignition and the Electronic Stabilization Program.

But what's most surprising is that even with better fuel efficiency and more torque than those other cars, the Passat still costs about \$10,000 less.\*

How's it possible? Simple. It's a Volkswagen.

When you think of all the facts and all the awards it's won, the argument that you have to pay a lot of money for a performance car just doesn't hold water. And at just \$23,180,\*\* it's another reason why, when you get into a Volkswagen, it gets into you.



[vw.com](http://vw.com)

© 2007 Volkswagen of America, Inc. <sup>†</sup>Based on a comparison of 0–60 mph times for comparably equipped models. <sup>\*\*</sup>EPA estimates. Your mileage may vary. Based on average hwy mpg. Passat 2.0 Turbo with automatic transmission: 22/31 (city/hwy), Mercedes C230: 19/25, BMW 525i with automatic transmission: 20/30, Lexus IS 250: 20/28. <sup>\*</sup>Based on the MSRP of comparably equipped models. <sup>\*\*</sup>Base MSRP for 2007 Passat with manual transmission. 2007 Passat shown with body kit and optional 18" wheels, MSRP \$25,430. Prices exclude accessory installation and painting, transportation, title, taxes, options and dealer charges. Actual price determined by Volkswagen dealer.



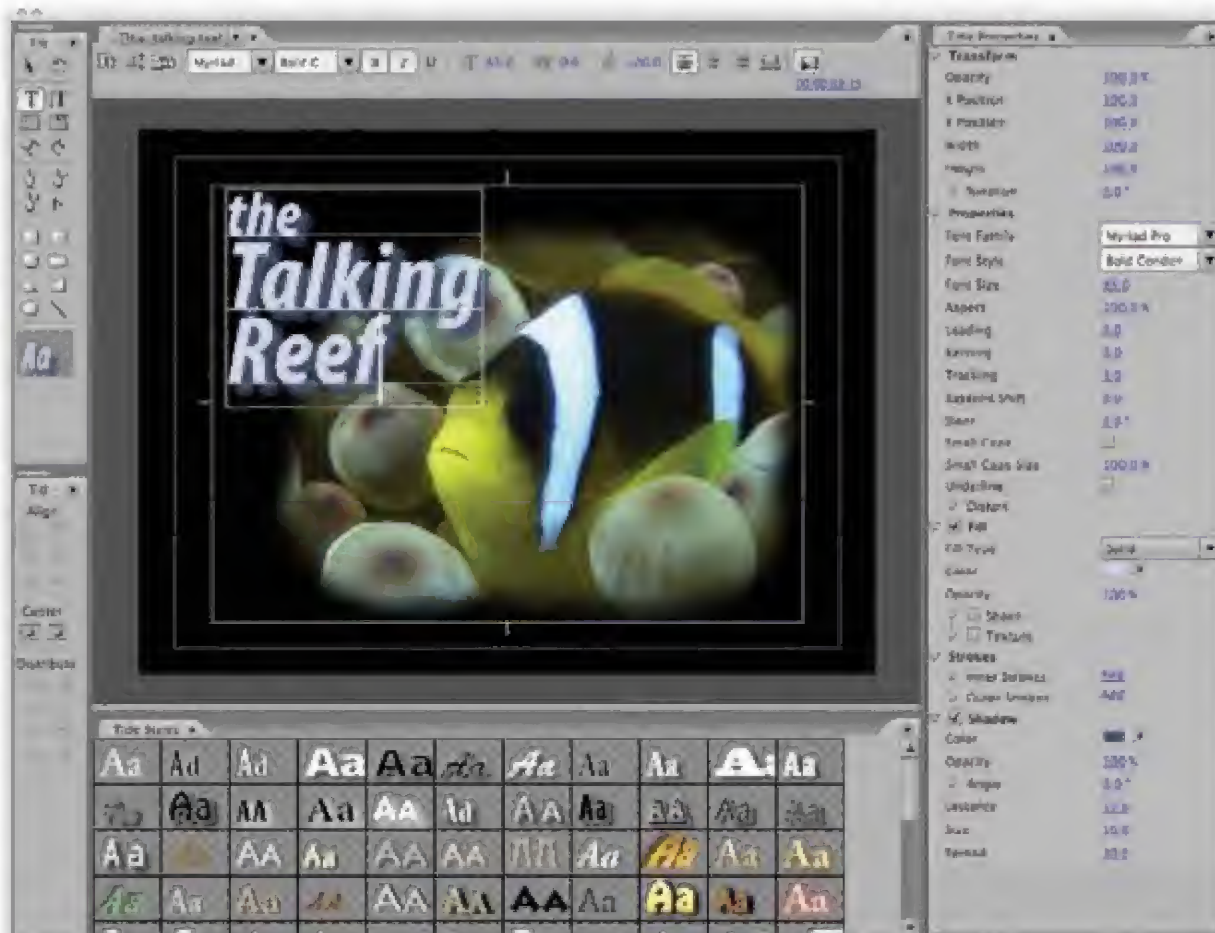
from After Effects, too (such as time remapping, which enables you to change a clip's playback speed over time), though you won't find every feature you may hope for (such as transfer modes). I look forward to even more consistency between the two programs in the future.

### Export and DVD Authoring

Premiere Pro includes the standard options for exporting to tape or to numerous movie, still image, and audio file types. A specialized export dialog box allows you to use Adobe Media Encoder, which is designed for exporting to formats with more-complex settings, such as MPEG-2, H.264, Flash, HD, and streaming media formats. In addition, you can test movies encoded for playback on mobile devices in Adobe's Device Central. But despite Premiere Pro's multiplicity of export options, it doesn't have batch rendering, which could be a real time-saver.

Premiere Pro CS3 ships with Adobe's professional authoring program. Encore CS3 (which was offered separately when Premiere Pro was Windows-only). Encore, a very powerful disc-creation tool, may be the most advanced DVD-authoring and -burning software currently available for the Mac.

Adobe's emphasis on product integration is evident in Premiere Pro's Export To Encore command, which encodes the



**Text and Graphics** Premiere Pro CS3's titler includes all the tools you need for creating text and graphics, along with a helpful panel of preset type styles.

all of the DVD's links and media available, exactly as you created it.

### Clip Notes

Clip Notes, a tool designed to facilitate collaboration and review cycles among team members, is perhaps one of Premiere Pro CS3's most distinctive features. Clip Notes lets you embed a draft-quality version of a work-in-progress in a PDF (or link to it from a PDF) that you can send to colleagues or clients for review.

### Macworld's Buying Advice

Premiere Pro CS3 is a capable, feature-rich video-editing application. Mac users will be pleased that Premiere Pro CS3 is related to Premiere 6.5 in name only, and possesses all the professional features its predecessor lacked. This version has all the functionality of its Windows counterpart, but it falls short of full parity, due to the omission of comparable HDV support, Adobe Ultra, and a Mac version of OnLocation.

Premiere Pro CS3 is a good value, especially compared with the more expensive Avid Xpress package. But although its capabilities and price are similar to those of Final Cut Pro 6, Premiere Pro's features alone won't convert Final Cut Studio's adherents. Until the program gains a stronger reputation on the Mac, Premiere Pro CS3 may depend on the popularity of the more prominent members of the CS3 Production Premium suite.

**Antony Bolante** is the author of the forthcoming *Premiere Pro CS3 Visual QuickPro Guide* and *After Effects CS3 Visual QuickPro Guide* (Peachpit Press). He is coproducing *On the Nose*, a documentary about theatrical clowns.

## Compatibility with the rest of the CS3 family is one of Premiere Pro's strong suits, with Bridge as the command center.

selected sequence and opens it in Encore automatically. From there, you can either burn a no-frills DVD or use Encore's advanced authoring capabilities to create a more complete professional product. Encore's integrated tools and helpful preset elements make it easy to add interactivity. When you're done, you can then export to DVD, to Blu-ray, or as a Flash file so that your DVD content can be streamed from a Web site with

Using nothing more than Acrobat Reader, reviewers can enter time-code-specific comments, which an editor can later import into the project as sequence markers. Clip Notes makes it easy for multiple reviewers working remotely to make detailed notes; and because those notes are attached to specific points in the sequence, it's easy for editors to make changes accordingly.



# Live Life Loud™

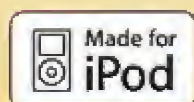


## iHome™

Rock and roll out of bed with your iH8 iPod® alarm clock radio. From your first stretch to your last yawn, groove to your favorite tunes. Your iPod® powers up on the one-size-fits-all charging dock, while the clear Reson8™ speakers take your music to a higher level. Sounds like another beautiful day.

🔊 The world's #1 producer of clock radios for the iPod

Check out the entire line at [www.ihomeaudio.com](http://www.ihomeaudio.com)



Available at:

Apple Store



RadioShack.

iHome and its products are trademarks of SGI Technologies, Inc. iPod® is a trademark of Apple Inc., registered in the U.S. and other countries.



# Soundbooth CS3

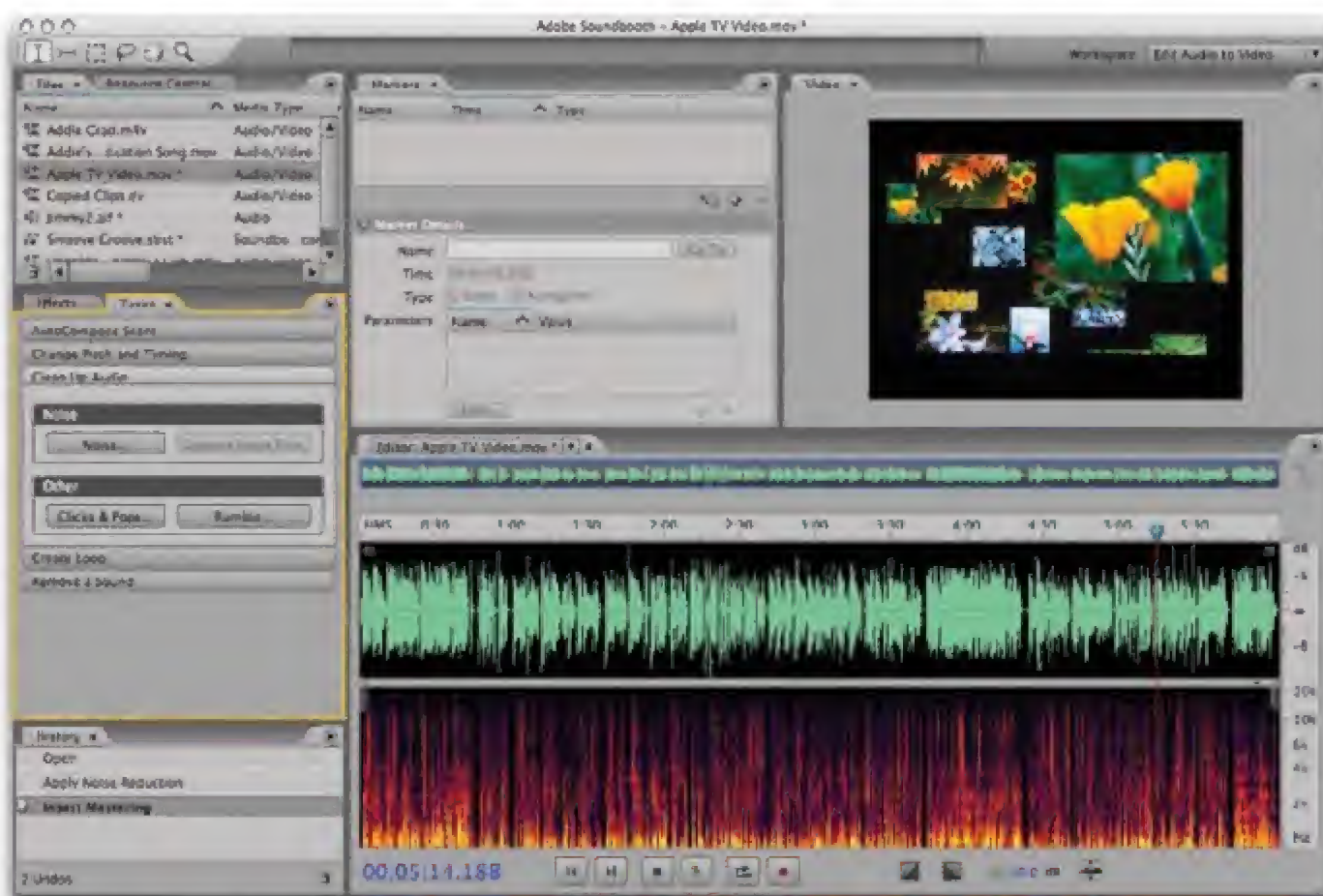
Audio editor provides essential multimedia tools **BY CHRISTOPHER BREEN**

**S**oundbooth CS3, Adobe's new Intel-only audio-editing program, was created with videographers in mind. Soundbooth makes it easy for multimedia creatives—including Flash developers and motion graphics artists—to fix common audio problems. However, the program may be too limited for videographers with complex audio troubles, or for sound specialists or professional musicians.

## Familiar Face

Soundbooth looks much like other CS3 applications—with tabbed panels, a central work area, and a collection of tools for performing common operations. The program offers a focused set of tools for removing noise; performing basic cuts and fades; adjusting volume, pitch, and time; adding effects; and automatically generating background-music tracks.

The program supports AIFF, WAV, MP3, and AAC audio formats but not



**Easy-to-Understand Interface** Thanks to a straightforward interface design, each of Soundbooth's important functions is available within a click or two.

Apple Lossless or protected files purchased from the iTunes Store. It supports common QuickTime-compatible video formats, too (but not file formats such as DivX that play in QuickTime only via a QuickTime plug-in).

Soundbooth provides a single window with a large central work area (called the Editor panel), as well as tabbed, docked panels that you can undock and reconfigure to create custom workspaces.

In addition, there is a Files panel, which lists open files; an Effects panel, where you add processing such as delay, chorus, reverb, and EQ; a Markers panel, which lists any markers you've placed in your file; a History panel similar to the same-named Photoshop panel; a Video panel, where you view video (the audio for that video appears in the Editor panel); and a Tasks panel, which includes functions for autocomposing scores, changing pitch and timing, cleaning up audio, creating loops, and removing sounds.

The top of the window is populated by a simple set of tools—a Time Selection tool for selecting audio in the timeline, a Frequency Selection tool for selecting a range of frequencies throughout the entire file (selecting high frequencies where noise might exist, for example), and a Rectangular Marquee tool for selecting frequency content in the Spectral Frequency display, which represents frequency content as bands of color. There's also a Lasso tool for making free-hand selections in the Spectral Frequency display, as well as Hand and Zoom tools.

The bottom of the window features Play controls, a time counter, buttons for adding fades, a volume-change control, and a Louder button, which increases the volume by +3dB with each click of the button. Within the Editor panel, you see your audio waveforms and, optionally, the Spectral Frequency display. Nearly every editing control features a slider, with labels that detail what will happen when you move it.

## Soundbooth CS3



**PROS:** Intuitive interface, with saved workspaces; effective, easy-to-use noise-filtering and effects; handy AutoCompose feature.

**CONS:** Missing true multitrack support; can't create multiple background-music tracks for a single video; lacks some editing tools that sound professionals would expect to find.

**OS X COMPATIBILITY:** 10.4 (Tiger)

**PROCESSOR COMPATIBILITY:** Intel

**PRICE:** \$199

**COMPANY:** Adobe Systems,  
[www.adobe.com](http://www.adobe.com)





# I'M A DJ

## A FATHER. A CEO.

And wherever I go, my music, my family photos and my earnings reports go with me. Some might say I have my whole world in the palm of my hand.

### MAXTOR ONETOUCH™ III MINI EDITION

Introducing up to 160GB of portable storage and automated backup that lets you take your digital life on the road, sync data between two or more computers, and keep your files secure with Maxtor DriveLock™ and Encryption.



That's a lot of Good Thinking in a mini package.  
Learn more at [www.MaxtorSolutions.com](http://www.MaxtorSolutions.com)

**Maxtor®**  
GOOD THINKING.™

© 2007 Seagate. Seagate Technology, Maxtor and the Maxtor stylized logo are registered trademarks, and Maxtor OneTouch and Maxtor DriveLock are trademarks of Seagate Technology LLC. Other trademarks are the property of their respective holders. Seagate Technology, 360 One Drive, Scotts Valley, CA 95066 U.S.A.



Retire the wire.



Bluetooth® wireless headphones.  
Exceptional sound. On-earpiece controls.  
Designed for iPod®. **iMuffs.com**



## Everyone's Effects

Soundbooth is not a full-featured audio editor, but the program nicely handles the basics. For example, producers often need to create audio that exactly fits a video's length or a precisely timed audio file such as a 30-second radio commercial. Soundbooth's Change Pitch And Timing task does that by stretching or compressing the sound to fit a designated time span, all without changing pitch. The program also includes a Clean Up Audio task to remove noise, clicks and pops, and rumble. Soundbooth lets you sample a file's noise, and can intelligently filter out much of it—a feature that works remarkably well.

Soundbooth includes such common effects as Delay, Reverb, EQ (both

graphic and parametric), Distortion, and Flanger. It also offers a Mastering effect, which includes Parametric EQ, Reverb, Exciter, Widener, and Limiter. When you add a basic effect, a pop-up menu appears next to the effect in the Effects panel. From this pop-up menu, you can then choose a variation on that effect.

## Missing Multitrack

Increasingly, multimedia projects require more than just a stereo soundtrack. Videos often contain audio captured with the video, narration, and background music.

Regrettably, Soundbooth's support for multitrack—if you can even call it that—barely exists. The program's designers seem to believe that producers should add these multiple tracks in Premiere Pro—the video-editing application in CS3 that supports multiple audio tracks—mix the results, and then import the movie with its stereo soundtrack into Soundbooth for final editing. I would like Soundbooth to be more of a one-stop shop where I can do the bulk of my audio work.

Soundbooth does offer a way to incorporate additional tracks, but that process is unintuitive and unorthodox.

## Background Music

You can also create a specific kind of additional track—a background-music track that the program intelligently generates.

Here's how it works. First, click on the AutoCompose Score button in the Tasks panel. Then click on Browse Scores in the resulting pane to choose one of the native Soundbooth scores within Adobe Bridge (40 professionally recorded, nicely performed scores are included). Last, double-click on the score to import it into a special Score track in Soundbooth's Files panel (or, optionally, choose a video reference track you'd like to add the score to). You can tell Soundbooth how often you'd like it to vary the score, and direct it to

## Soundbooth features a focused set of tools for removing noise; performing basic cuts and fades; adjusting volume, pitch, and time; and adding effects.

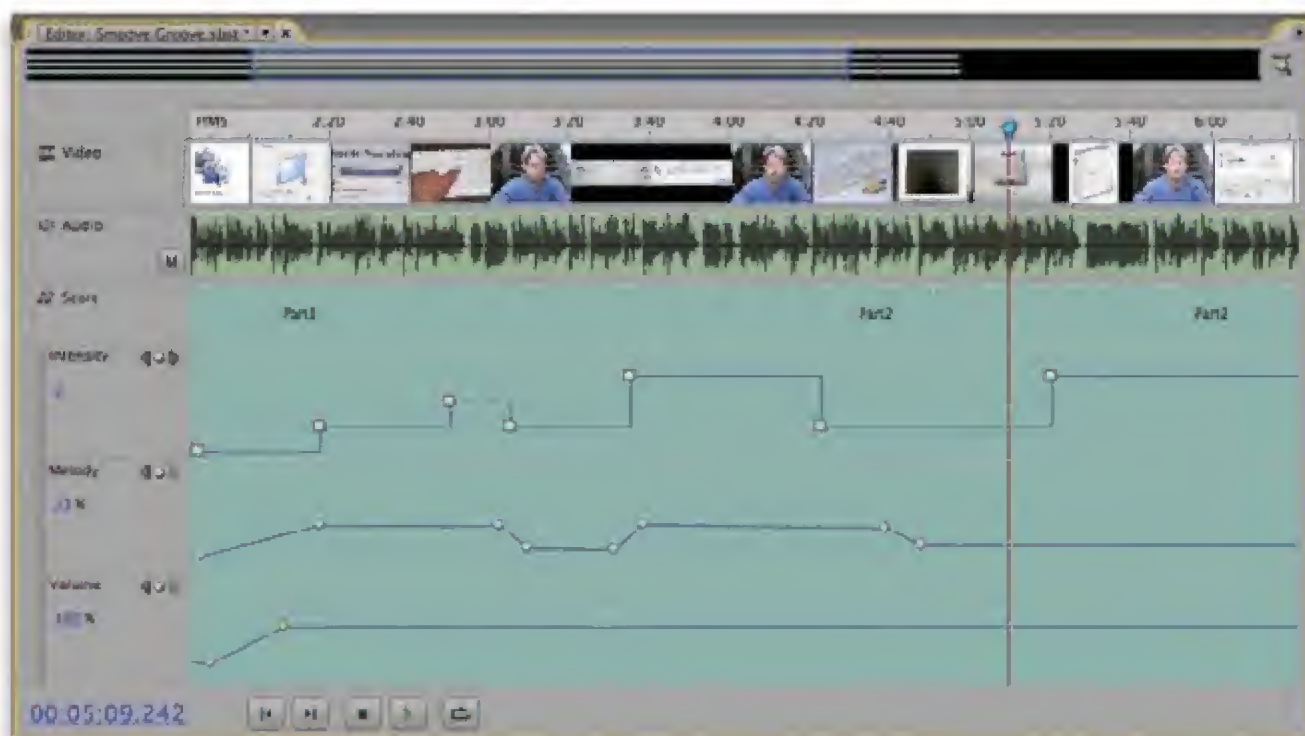
construct an intro, an outro, or a score that contains both. Once you've imported the soundtrack, you can change the length of the score—just drag to the right to lengthen it or to the left to shorten it. Too bad there isn't a way to compose more than one score for a single video.

## Cue Points with Flash

Soundbooth introduces new tools for preparing audio and video *cue points* (positions in an audio or video stream timeline) for Flash CS3. You can take markers that you've added to an audio or video file in Soundbooth and export them to Flash as cue points. You can then use the cue points either as Navigation Markers (enabling users, for example, to jump to different portions of a video) or as Event Markers (for example, to trigger synced elements like captions or interactive animations).

Any time you add a marker in Soundbooth, you're also adding a Flash-compatible cue point. You can select the type (Event or Navigation) in the Markers pane, and then export them to Flash either as a separate list of cues (by exporting to XML) or as cues embedded in the audio or video stream (by export-





**Control Background Music** By choosing the Keyframing editing mode, you can control the intensity, melody, and volume of a generated background music score.

ing to Flash's FLV format). Flash has powerful tools for manipulating these cue points, but you will need to be comfortable with ActionScript 3.0 to take advantage of them. ActionScript, a pro-

gramming language that is part of Flash CS3 Professional, includes methods for jumping to successive cue points, finding cue points by name and type, and triggering other actions, such

as displaying text on screen when a cue point is reached.

### Macworld's Buying Advice

Multimedia producers who have never faced an audio editor—and don't relish doing so—will find Soundbooth CS3 an accessible and largely capable tool. But if your audio needs are more ambitious—for example, if you require multitrack recording and editing, and you want to use cross-fades and more-exacting waveform editing tools—consider a full-blown audio editor instead.

Senior Editor **Christopher Breen** is the author of *The iPod and iTunes Pocket Guide*, second edition (Peachpit Press, 2007). **Peter Kirn** contributed the Flash section of this review.

## Your Mac Pro's Dream Date



### The 3ware Sidecar & Your Apple Mac Workstation: The Perfect Match

The 3ware® Sidecar by AMCC is a powerful SATA RAID desktop storage solution designed specifically for the Apple® Power Mac® G5 with PCI Express and Mac Pro. At speeds 4-8x faster\* than Firewire or USB, it can store and protect tons of your photos, songs, videos, illustrations and web pages.

Whether you're editing and archiving digital photo shoots or snapshots, home movies or future Academy Award® winning films, garage jam sessions or professional mixes — rest assured your data will always be protected. The 3ware Sidecar is designed for creative professionals and enthusiasts who care about their data and just can't risk losing it! With the 3ware Sidecar, your data is RAID protected, so a failed drive won't mean the loss of hours of creative output.

On the set, in your studio or at the office, the 3ware Sidecar lets you think outside the box. And with up to 3TB\*\* of storage capacity, there's no need to worry about running out of space. Just install, set up and connect — it's as easy to use as 1-2-3.

3ware Sidecar, the perfect partner for your G5 or Mac Pro workstation — no dinner required.



Think Outside the Box  
Find out more at [www.3ware.com](http://www.3ware.com)  
Or call (877) 88-3ware; 877-883-9273



AMCC and 3ware are registered trademarks of Amcc Microsystems Corporation. All other trademarks are the property of their respective holders. Copyright © 2006 Apple and Mac Pro are trademarks of Apple Computer, Inc. All Rights Reserved.

\* SATA II: 300MB/second; Firewire: 80MB/second; USB 2.0: 40MB/s  
\*\* Using four 750GB SATA drives (not included)



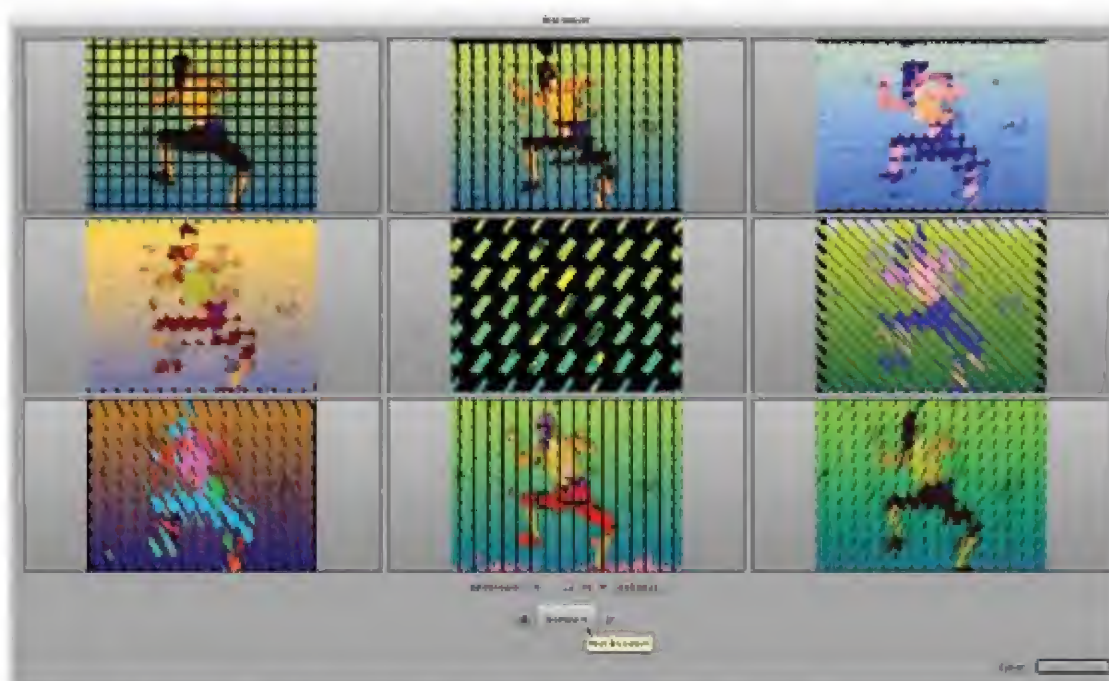
# After Effects CS3 Professional

Adobe adds new tools and improves integration with the suite **BY JEFF FOSTER**

**A**dobe has added impressive new animation features and improved functionality to After Effects CS3 Professional. New timeline tools, true 3-D animation of individual text characters, and tight integration with Adobe Photoshop CS3 Extended and Flash CS3 Professional (both \$499) all come wrapped in a familiar package. This version offers a better import and export path, and retains more layer and effects information between After Effects and other CS3 programs.

The new Shape Layers feature includes not just basic rectangles and ellipses, but also scalable vector-shape polygons and multipoint stars that you can modify and keyframe to create animations like never before. You can edit and animate the shapes and the components of the shapes, including strokes, fills, roundness, dashes, gradients, and more. Shape layers can contain a compound shape—a group with any number of shapes—so that animations or settings for a particular layer affect the entire group of shapes on that layer. And you can now convert text to a Shape Layer and move individual text characters in 3-D (also called Z-space) through the animators.

The new Puppet tool is intuitive and powerful, giving you the ability to take a rasterized image layer and animate it by stretching and bending character parts



**Different Options** Experiment with creative new variations on layers and effects by way of the new Brainstorm feature.

and limbs. This is a truly remarkable independent warp mesh that can overlap other areas of the layer.

The new Brainstorm feature helps you avoid creative ruts. If you select various layer and effects properties and then click on the Brainstorm button, the program gives you a number of possible size, shape, color, or motion options that you can refine and change.

Never before have Adobe After Effects and Photoshop been as closely integrated as they are in this new video production suite. With its Photoshop-like Layer Styles, editable PSD Video Layers, and Vanishing Point 3-D scenes, working between the two applications is swift and efficient. Many of the features in Photoshop's effects can be animated on the After Effects timeline. Unfortunately, transferring layer style effects from your PSD layers into After Effects' layer styles is not as intuitive as I'd like.

Adobe Bridge CS3 can now play image-sequence stacks as animations, allowing Photoshop image sequences to play in large preview windows before being imported into After Effects.

The new version of After Effects is highly interoperable with Flash CS3. You can import Flash (SWF format) files as scalable vectors with alpha channel

transparency, and use them to easily create 3-D layer animations. The rasterized vector shapes—along with the alpha channels from Flash—are preserved.

The addition of Clip Notes in this version makes client approvals and project-team reviews much easier. You can now render your movie into an Adobe PDF format file, and select whether or not to embed the movie data (which creates a larger file) or stream it from a server.

I experienced noticeably faster preview and render times compared with the previous version on my Power Mac G5. But you must still render out the preview before viewing your changes.

## Macworld's Buying Advice

After Effects CS3 Professional is a major advancement. Motion-graphic artists will quickly find the new features and tools indispensable in their daily creative production, and the workflow between After Effects and the rest of the suite has been refined and more thoroughly integrated. This program's many innovative and creative new tools will keep you coming back for more. **X**

**Jeff Foster** is the author of *After Effects and Photoshop: Animation and Production Effects for DV and Film*, second edition (Sybex, 2006).

## After Effects CS3 Professional



**PROS:** New animation tools such as the Puppet tool; improved 3-D text characters; creative brainstorming feature; improved integration with Photoshop and Flash.

**CONS:** Previews still take time to render before you can view changes; Photoshop layer style effects do not transfer intuitively to After Effects projects.

**OS X COMPATIBILITY:** 10.4 (Tiger)

**PROCESSOR COMPATIBILITY:** Universal

**PRICE:** \$999; upgrade, \$299

**COMPANY:** Adobe Systems,  
[www.adobe.com](http://www.adobe.com)



## zCover iSAglove for Apple iPhone

zCover's iSAglove design is available in four functional combos and focuses on intuitive usability while offering protection in its fullest form. The iSAglove will first be released in five zCover ice series colors: blue, purple, grey, pink, & clear, each one designed to work seamlessly with iPhone's light sensor.

zCover has always focused on the merging of function and style, but this time the iSAglove not only provides full access to all of the iPhone's functions, but also has a few enhanced functions of its own.

What may very well become their signature style, zCover incorporated a unique slide-edge cut into the iSAglove at the top edge of the screen. This ensures the iPhone is protected without blocking the iPhone's proximity (built in motion) sensor. This feature alone differentiates zCover from the others. Reinforced corners support a natural hand position when in horizontal mode and have a reinforced silicone layer that works as a "crash cushion" during drops and falls. The rugged side finger grooves provide a comfortable fit for any sized hand, and the universal headset jack opening has been tested to fit your favorite pair of Apple headphones. zCover's innovative port flip-cover has been applied to the iPhone perfectly, protecting the Apple dock port from sand, dust, dirt and liquids, while still allowing full accessibility for charging, or even docking your iPhone while still in the iSAglove case. The unique belt clip system allows you to turn your iPhone horizontally and vertically with ease.



Several button features have also been included.

- > The sleep/wake button has been enhanced so it is still protected but remains easy to press
- > Volume button protection prevents you from accidentally turning down your favourite song
- > A die-cut for the ring/silent switch allows you to change modes without difficulty

zCover's iSAglove is available in four functional combinations:

### iSAglove Original:

iSAglove Silicone Protection Case + Removable Belt Clip  
 Offering you full protection for your iPhone, and the function of mobility with our innovative 360 degree rotating belt clip, this system is the perfect "All-you-need-for-iPhone" combo for any iPhone owner.



### iSAglove Car Kit:

iSAglove Silicone Protection Case + Removable Belt Clip + Window Clip

The Car Kit adds a whole new element to the experience of owning an iPhone. Besides the protection of the iSAglove cover, the mobility of the 360 degree rotating Belt Clip, the additional window clip allows you to attach your iPhone GPS style in your car, as an entertainment centre on the side window, or as a vertical stand at your desk. It doesn't matter which way you turn it, the iSAglove Car kit is ideal for those on the road.



### iSAglove Outdoor Kit:

iSAglove Silicone Protection Case + Removable Belt Clip + Rotary Armband

This package offers maximum mobility for the active iPhone owner. You get the iSAglove cover protection, the 360 degree rotating Belt Clip, and the perfect-fit rotary armband. This combination is ideal for outdoor enthusiasts hiking and biking through the woods, or the fitness fanatic jogging through the streets.



### iSAglove Dock Kit:

iSAglove Silicone Protection Case + Removable Belt Clip + iPhone Dock Extend



Are you using your iPhone constantly? The Dock Kit gives you the iSAglove protection, mobility with the 360 degree rotating removable Belt Clip, but also provides the iPhone Dock Extend, an original zCover design that adapts to the iPhone Dock, allowing you the freedom to dock your iPhone with iSAglove Silicone Protection Case



zCover iSA Series for iPod



## Show Style, Enjoy Functionality

A Leading Producer of Silicone Protectors  
 Trend-setting Fashionable Cases  
 Excellent Protection & Fit  
 Extraordinary Durability  
 Functionality with Elegance  
 Technology with Inspiration



zCover iSAglove Series for iPhone



**zCOVER**  
 fashionable protection cases  
 www.zCover.com





# macworld.com/reviews

What we're reviewing online this month

## SOFTWARE



### Desk Doctor 1.3

**RATING:** **PRICE:** \$139; download, \$129

**COMPANY:** Einspine **URL:** [www.einspine.com](http://www.einspine.com)

For some people, working at the computer all day can be a painful experience—literally. Einspine's Desk Doctor 1.3.1 offers to help by keeping you mindful of your work habits and creating an exercise plan customized to your personal needs. It offers nice production values, useful feedback about your risk level, and an interesting mix of exercises. If you tend to get caught up in your work, however, you may find Desk Doctor's warnings a bit too subtle to be effective—especially if keeping audio alerts turned on isn't an option in your office. And at \$139, the program is expensive ([macworld.com/2999](http://macworld.com/2999)).

### iFamily for Tiger 2.2

**RATING:** **PRICE:** \$30 **COMPANY:** KS Wilson & Associates **URL:** [www.ifamilyfortiger.com](http://www.ifamilyfortiger.com)

iFamily for Tiger 2.2 is a genealogy program that allows you to gather and organize information about your family in an easy-to-navigate, two-paneled window. The top half of the window displays your family chart, with up to six levels of generational information. The bottom half of the window lets

you display and edit all the information about any individual you select in the upper half. A button bar, located just below the bottom pane, allows you to jump quickly between 12 viewing and editing options. The program integrates well with iPhoto, although it lacks support for video files. Also, some odd data-entry options make iFamily unintuitive. Overall, though, it's a good choice for collecting and managing your family history ([macworld.com/3000](http://macworld.com/3000)).



### MindManager 7.0

**RATING:** **PRICE:** \$129; upgrade, \$69

**COMPANY:** Mindjet **URL:** [www.mindjet.com/us](http://www.mindjet.com/us)

MindManager 7.0.270 is a top-notch brainstorming tool. As with many other mind-mapping tools, you start with a topic and add branches as you develop your idea. The program is easy to use, integrates well with many other productivity programs, and lets you export your mind maps in a variety of formats. While this latest version still lacks integration with Microsoft Office applications, that shouldn't deter you from using this otherwise excellent program ([macworld.com/2998](http://macworld.com/2998)).

### Sequel

**RATING:** **PRICE:** \$100 **COMPANY:** Steinberg **URL:** [www.sequel-music.net](http://www.sequel-music.net)

Trying to beat GarageBand at its own game, Sequel 1.0.1 seeks to appeal to both entry-level musicians and pros frustrated by the daunting interfaces found in most high-end music software. The program encourages a loop-based style of composition that lets you drag and drop audio and MIDI loops into a single window; everything is

automatically adjusted for key and time signature. Sequel includes more than 4,500 loops and more than 600 instruments, covering a variety of musical genres. Club DJs will find its superior audio-stretching and live-performance tools fantastic for producing groove-oriented club music—no musical knowledge required. It's worth the price just for its large, well-categorized loop library, although it won't enable you to use the wealth of third-party plug-ins that are available for GarageBand. Even jaded musicians might be surprised at how quickly they can throw a song together—and how much fun they'll have doing it ([macworld.com/3001](http://macworld.com/3001)).



### Wacky Mini Golf

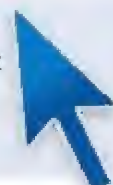
**RATING:** **PRICE:** \$25 **COMPANY:**

DanLabGames **URL:** [www.danlabgames.com](http://www.danlabgames.com)

Although the new Wacky Mini Golf doesn't offer quite as many holes as its predecessor, Islands Mini Golf, it's much more challenging, and throws up a greater variety of hazards to keep you from sinking a putt—such as crabs walking about and beach balls blocking your way. The game features 72 holes spread across four small archipelagoes, and up to four players can play at a time.



**FIND IT ONLINE** For expanded reviews, type the blue URL at the end of each summary into your browser's address bar.





## MiniStation TurboUSB

- Up to 64% Faster than a 4200 RPM USB Hard Drive
- Shock Resistant Design
- Convenient Wrap-Around USB Cable
- Up to 250 GB

» Up to 64,000 raw images!\*



Turbocharged USB Hard Drives



## DriveStation TurboUSB

- Up to 37% Faster than a 7200 RPM USB Hard Drive
- Silent, Fanless Design
- Turns On and Off Automatically with your PC
- Up to 1.0 TB

» Up to 200,000 raw images!\*

Available at these fine Retailers:

Buy.com    Fry's    MICRO CENTER    See right next to the right corner MacConnection

# BUFFALO

\*Values used for images are approximates based on typical length, compression and resolutions.

© Buffalo Inc. 2007. BUFFALO logo, AirStation, DriveStation, DriveStation Duo, LinkStation, MiniStation, NanoUF and TeraStation are either trademarks or registered trademarks of Meko Holdings Inc. The names and logos of other companies mentioned herein belong to their respective owners.



Sadly, there's no online gaming option, but the game is fun to play and includes some clever, Rube Goldbergian apparatuses for delivering your ball from one place to another ([macworld.com/3002](http://macworld.com/3002)).

## HARDWARE

### Drobo

**RATING:** 

**PRICE:** \$499

**COMPANY:** Data Robotics

**URL:** [www.drobo.com](http://www.drobo.com)



Drobo is an external USB storage device that accepts up to four SATA drives. It features built-in RAID-like redundancy that can protect you against drive failure. If one of your hard drives dies, just pop in a replacement drive, and Drobo will deftly merge it with your existing storage pool without your having to do anything else. Drobo's use of USB rather than the much faster FireWire 800 data-transfer standard limits it to the niche of personal desktop storage; if you're in an environment where you routinely share large data files with other people, look elsewhere. But if you're in need of a safe, easy personal backup device that can grow with

your data needs as larger hard drives become available, the Drobo is a very attractive option ([macworld.com/3003](http://macworld.com/3003)).

### NX-PS1 Digital Music Speaker System

**RATING:**  **PRICE:** \$250 **COMPANY:** JVC

**URL:** [www.jvc.com](http://www.jvc.com)

Whereas previous JVC minisystems offered CD players, radios, and even MiniDisc decks, the NX-PS1 has no audio source of its own; it's up to you to provide the music, in the form of an iPod or other digital media player. But the system doesn't offer a true iPod dock; instead, you get a dock-connector cable, along with an odd reclining stand that lays your iPod nearly horizontally on a desk or table. A USB-audio connection makes the NX-PS1 a good companion for a desktop computer, but the system's lack of an FM tuner is puzzling, and its overall sound quality is a bit disappointing given the NX-PS1's price ([macworld.com/3006](http://macworld.com/3006)).



### Pixma Pro9500

**RATING:** 

**PRICE:** \$850

**COMPANY:** Canon

**URL:** [www.usa.canon.com](http://www.usa.canon.com)



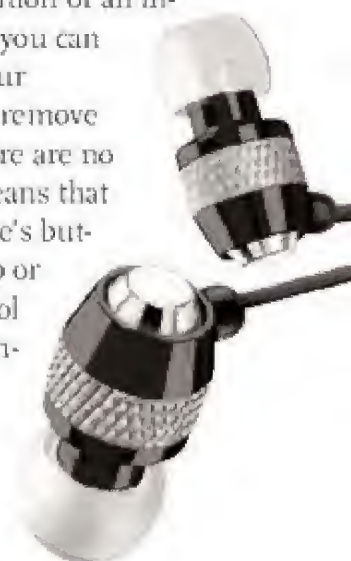
The new Pixma Pro9500 represents Canon's entry into the higher end of the photo-printer market. It prints on papers up to 13 by 19 inches and offers support for thick media types. Though no speed demon, it's a decent printer that produces very good prints, especially on Canon's own papers. If you plan to print solely on glossy paper, however, better printers exist. The Pro9500 cartridges are fairly small for a large-format printer, but its ink usage was generally efficient and impressive ([macworld.com/3007](http://macworld.com/3007)).

### Vibe Duo

**RATING:**  **PRICE:** \$101 **COMPANY:** V-Moda

**URL:** [www.vmoda.com](http://www.vmoda.com)

The Duo is essentially V-Moda's original Vibe headset with the addition of an in-line microphone. With it, you can make and take calls on your iPhone without having to remove your headphones. But there are no in-line controls, which means that you have to use the iPhone's buttons and screen to pick up or hang up a call, or to control music playback. If that limitation bothers you, get a dedicated headset with controls ([macworld.com/3005](http://macworld.com/3005)).



## Mac Pro 3GHz Eight-Core

**RATING:**  **PRICE:** \$3,997

**COMPANY:** Apple **URL:** [www.apple.com](http://www.apple.com)

Power-hungry computer users are always looking for tools to speed up time-consuming tasks. Many hotshots go straight for the top-of-the-line models when shopping for a new Mac. And now Apple has added another choice to its highly configurable pro desktop line—a Mac Pro with eight processing cores, each running at 3GHz. For software programmers eager to help their applications take advantage of multicore systems, or for Mac users who regularly spend hours compressing video or rendering 3-D scenes, purchasing the eight-core Mac Pro makes sense. Our testing, however, shows that most people would be served

just as well by a less-expensive quad-core Mac Pro. Unless you're an application developer looking to optimize your programs for multicore processing, or a user of the small handful of multiprocessor-aware applications, a quad-core Mac will probably give you more bang for your buck ([macworld.com/3008](http://macworld.com/3008)).



### WiDock

**RATING:**  **PRICE:** \$150 **COMPANY:** Silex Technology

**URL:** [www.silexamerica.com](http://www.silexamerica.com)

At \$150, the WiDock—a wireless iPod dock—is not cheap, especially considering its lack of a full-featured remote control; the convenience of a wireless dock is in some ways compromised by the need to get up and walk to your iPod each time you want to switch to a new playlist or a different movie. But for a device that offers never-before-seen technology, the WiDock works well. If your entertainment system is cluttered with too many wires, the WiDock offers a unique solution that just may be worth the cost ([macworld.com/3004](http://macworld.com/3004)).





# Welcome to your peace of mind.



Get organized.  
Stay organized.

## Relax.



**OmniFocus** is a personal productivity application that helps you capture your thoughts, turn ideas into actions, and free your mind to focus on what's really important.



Coming soon from The Omni Group. Learn more at [www.omnigroup.com/omnifocus](http://www.omnigroup.com/omnifocus)



# Top Products

Your guide to the best hardware we've tested. See more at [macworld.com/reviews](http://macworld.com/reviews).

## PRINTERS

### LASER PRINTER C6100dn

RATING: 

PRICE: \$676

COMPANY: Oki Data

URL: [www.okidata.com](http://www.okidata.com)



The C6100dn, from Oki Data, produces great-looking prints and includes built-in duplexing. It also offers easy network connectivity and quick printing speeds ([macworld.com/1670](http://macworld.com/1670)).

### INK-JET PHOTO PRINTER

#### Pixma iP6700D

RATING: 

PRICE: \$114

COMPANY: Canon

URL: [www.canon.com](http://www.canon.com)



The Canon Pixma iP6700D prints excellent-quality photos comparable to those developed in a lab. Its ease of use ensures that veteran photographers won't miss the long days they spent in a darkroom ([macworld.com/2700](http://macworld.com/2700)).

### COMPACT PHOTO PRINTER

#### Pixma mini260

RATING:  PRICE: \$85

COMPANY: Canon

URL: [www.canon.com](http://www.canon.com)



The Pixma mini260 produces excellent 4-by-6-inch photos. Its easy-to-use scroll wheel and intuitive interface make photo printing easy and fun ([macworld.com/1694](http://macworld.com/1694)).

### MULTIFUNCTION INK-JET

#### Photosmart C7180

RATING: 

PRICE: \$309











COMPANY: Hewlett-Packard

URL: [www.hp.com](http://www.hp.com)



The HP Photosmart C7180's features, connection options, and solid print and

## MACS

PRODUCT	PROCESSOR	RATING	PRICE*	DISPLAY	SPEEDMARK 4.5 SCORE*	FIND CODE*
DESKTOP						
	Intel Core 2 Duo/2GHz		\$1,199	20 inches	 257	3029
	Intel Core 2 Duo/2.4GHz		\$1,499	20 inches	 280	3028
	Intel Core 2 Duo/2.4GHz		\$1,799	24 inches	 279	3027
	Intel Core 2 Duo/1.83GHz	not yet rated	\$599	not included	 195	3030
	Intel Core 2 Duo/2GHz	not yet rated	\$799	not included	 210	3031
	Intel Xeon/ two dual-core 2.66GHz		\$2,250	not included	 299	2489
PORTABLE						
	Intel Core 2 Duo/2GHz		\$999	13 inches	 192	2863
	Intel Core 2 Duo/2.16GHz		\$1,090	13 inches	 195	2864
	Intel Core 2 Duo/ 2.16GHz (black)		\$1,299	13 inches	 202	2865
	Intel Core 2 Duo/2.2GHz		\$1,970	15 inches	 220	2932
	Intel Core 2 Duo/2.4GHz		\$2,350	15 inches	 234	2933
	Intel Core 2 Duo/2.4GHz		\$2,448	17 inches	 237	2934

\* From a PriceGrabber survey of retailers as of August 7, 2007. \* Speedmark 4.5 is Macworld Lab's standard test tool for benchmarking systems running Mac OS X 10.4 (Tiger). For information on Speedmark testing, go to [www.macworld.com/speedmark](http://www.macworld.com/speedmark). \* Typing in find codes after [macworld.com/](http://macworld.com/) directs you to a product's review or overview. For example, [macworld.com/2489](http://macworld.com/2489) contains an overview of the 2.66GHz Mac Pro.

scan quality make it an excellent ink-jet MFP ([macworld.com/2475](http://macworld.com/2475)).

### MULTIFUNCTION LASER

#### AcuLaser CX11NF

RATING:  PRICE: \$399

COMPANY: Epson

URL: [www.epson.com](http://www.epson.com)

This device has it all: it's a color laser printer, a sheet-fed scanner,



a copier with networking capabilities, and a fax machine ([macworld.com/1669](http://macworld.com/1669)).

## FLATBED SCANNER

### Perfection V700 Photo

RATING: 

PRICE: \$415

COMPANY: Epson

URL: [www.epson.com](http://www.epson.com)



The Epson Perfection V700 Photo is an excellent midrange scanner for people who need to scan both reflective media and transparencies, espe-

Top Products are those we've recently reviewed in a comparison of like products. As new products become available, we'll update this list. For longer reviews of these products and for other product recommendations, go to [macworld.com/reviews](http://macworld.com/reviews). All prices are the best current prices taken from a PriceGrabber survey of retailers as of August 7, 2007. All products were available as of July 13, 2007.



cially at high resolutions ([macworld.com/1519](http://macworld.com/1519)).

## DIGITAL CAMERAS

### DIGITAL SLR D40

**RATING:**   
**PRICE:** \$399  
**COMPANY:** Nikon  
**URL:** [www.nikonusa.com](http://www.nikonusa.com)



The Nikon D40 is a great value. This 6.1-megapixel camera comes with every feature you'd desire in a DSLR, such as adjustable ISO, Raw mode, and a variety of image-processing features ([macworld.com/2498](http://macworld.com/2498)).

### COMPACT DIGITAL CAMERA Coolpix S7c

**RATING:**   
**PRICE:** \$300  
**COMPANY:** Nikon  
**URL:** [www.nikon.com](http://www.nikon.com)



If you're looking for a full-featured point-and-shoot camera that delivers excellent image quality, the 7-megapixel Nikon Coolpix S7c is a great choice. Its ease of use and convenient Wi-Fi features add great value to a fine camera ([macworld.com/2386](http://macworld.com/2386)).

## MINIDV CAMCORDER

### PV-GS320

**RATING:**   
**PRICE:** \$385  
**COMPANY:** Panasonic  
**URL:** [www.panasonic.com](http://www.panasonic.com)



Compared with other 3-CCD MiniDV camcorders, the Panasonic PV-GS320 is a bargain. And it's a good choice for people who want a camcorder that shoots high-quality video and still images for half the cost of a high definition device ([macworld.com/2701](http://macworld.com/2701)).

## LCD MONITORS

### LARGE DISPLAY LP2465

**RATING:**   
**PRICE:** \$585  
**COMPANY:** Hewlett-Packard  
**URL:** [www.hp.com](http://www.hp.com)



The LP2465 is an affordable and flexible 24-inch desk-

top LCD with a 16:10 wide-screen aspect ratio that immediately makes one think of the cinema ([macworld.com/2508](http://macworld.com/2508)).

### MEDIUM DISPLAY MultiSync 2190UXi

**RATING:**   
**PRICE:** \$1,049  
**COMPANY:** NEC  
**URL:** [www.necdisplay.com](http://www.necdisplay.com)



The 21-inch NEC MultiSync 2190UXi doesn't come cheap, but graphics pros will love its vivid and accurate colors, and wide viewing angle ([macworld.com/1445](http://macworld.com/1445)).

## DUAL-LAYER DVD BURNER

### DRX-830UL-T

**RATING:**   
**PRICE:** \$98  
**COMPANY:** Sony  
**URL:** [www.sony.com](http://www.sony.com)



The Sony DRX-830UL-T is an external rewritable drive that's capable of burning multiple for-

mats at very fast speeds. You can't ask for much more from a CD and DVD burner ([macworld.com/2510](http://macworld.com/2510)).

## FIREWIRE HARD DRIVES


### DESKTOP DRIVE G-Drive Q 500GB

**RATING:**   
**PRICE:** \$243  
**COMPANY:** G-Technology  
**URL:** [www.g-technology.com](http://www.g-technology.com)



The G-Drive Q SATA hard drive has nearly every type of connection you could want, and it operates without a fan, so it's very quiet ([macworld.com/1632](http://macworld.com/1632)).







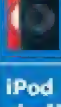
### PORTABLE DRIVE Rocbit 2B

**RATING:**   
**PRICE:** \$239  
**COMPANY:** Roc-secure  
**URL:** [www.rocsecure.com](http://www.rocsecure.com)



The Rocbit 2B is a fast and pleasantly quiet portable hard drive featuring real-time encryption. It's well worth its cost if security is a concern ([macworld.com/1443](http://macworld.com/1443)).

# iPODS

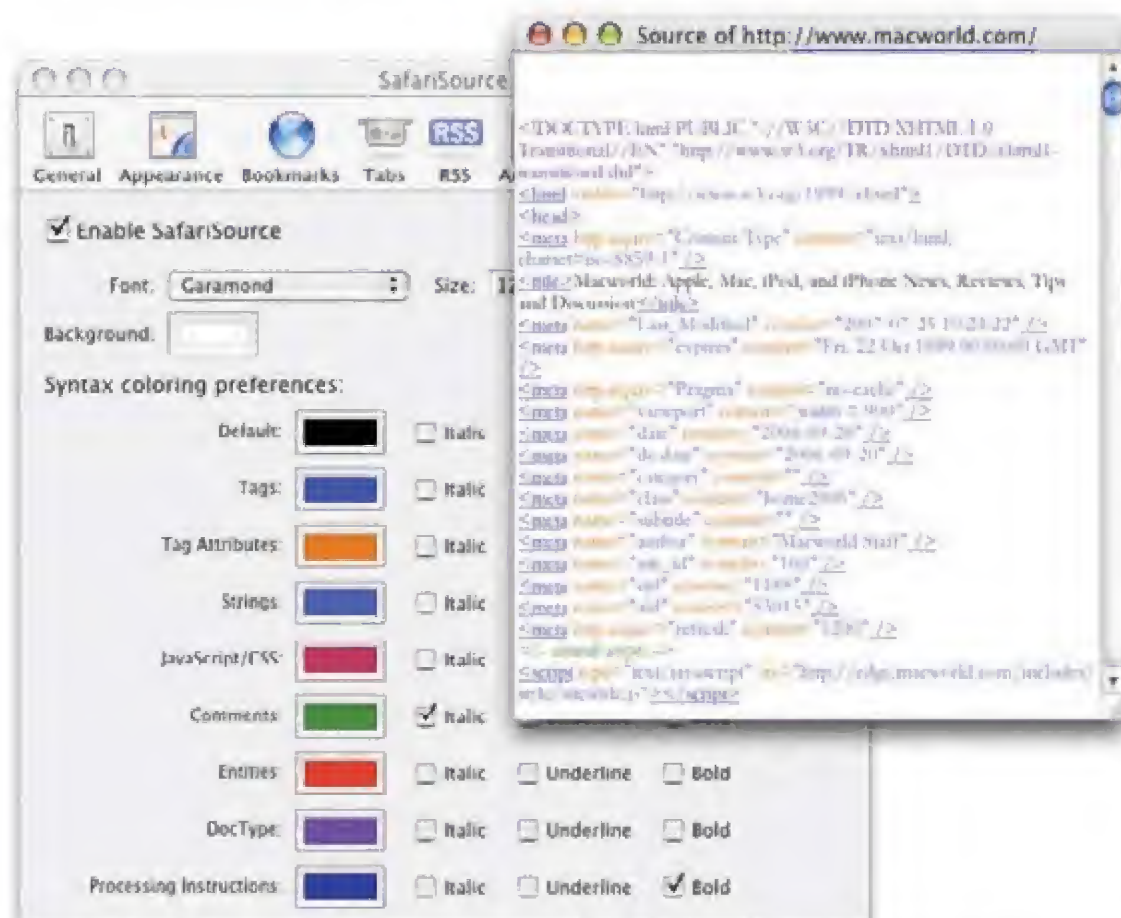
PRODUCT	CAPACITY	RATING	PRICE*	DISPLAY	BATTERY LIFE	MEDIA SUPPORTED	FIND CODE*
 iPod	30GB		\$229	2.5-inch color	14 hours of music playback; 4 hours of slide shows with music; 3.5 hours of video playback	Music, photos, album art, video, games	<b>2233</b>
 iPod	80GB		\$320	2.5-inch color	20 hours of music playback; 6 hours of slide shows with music; 6.5 hours of video playback	Music, photos, album art, video, games	<b>2234</b>
 iPod nano	2GB		\$139	1.5-inch color	24 hours of music playback; 5 hours of slide shows with music	Music, photos, album art	<b>2235</b>
 iPod nano	4GB		\$189	1.5-inch color	24 hours of music playback; 5 hours of slide shows with music	Music, photos, album art	<b>2236</b>
 iPod nano	8GB		\$231	1.5-inch color	24 hours of music playback; 5 hours of slide shows with music	Music, photos, album art	<b>2237</b>
 iPod shuffle	1GB		\$75	none	12 hours of music playback	Music	<b>2238</b>

\* From a PriceGrabber survey of retailers as of August 7, 2007. \* Typing in find codes after [macworld.com/](http://macworld.com/) directs you to a product's review or overview. For example, [macworld.com/2233](http://macworld.com/2233) contains an overview of the 30GB video iPod.



# Mac Gems

Get more and expanded reviews at [macworld.com/macgems](http://macworld.com/macgems) **BY DAN FRAKES**



**Color-Coded Source Code** SafariSource makes Safari's source view much easier to read.

## DEVELOPMENT

# SafariSource 1.7.2

**RATING:** **PRICE:** payment requested  
**COMPANY:** TildeSoft **URL:** [www.tildesoft.com](http://www.tildesoft.com)

One complaint I hear from Safari users—especially those who do Web development—is that Safari's source view (View: View Source) doesn't provide syntax coloring like many other browsers do; instead, you get a page of plain text that's difficult to read.

Rather than switching to a different browser, consider using TildeSoft's SafariSource 1.7.2, a plug-in that adds syntax coloring to Safari's source view. You can choose the overall text font and size, as well as the background color. More important, you can choose a different color for each element of a Web page (tags, attributes, strings, JavaScript, CSS, and so on); you can also choose to italicize, underline, or bold

particular types of text (assuming, of course, that the font you've chosen supports these styles).

Source code still won't be understandable to the layperson—it is HTML, after all—but SafariSource is a wonderful tool for code-savvy people who are interested in exploring a Web site's source.

## PRODUCTIVITY

# iConiCal 1.2

**RATING:** **PRICE:** payment requested  
**COMPANY:** BlockSoft **URL:** [www.blocksoft.net](http://www.blocksoft.net)

Apple introduced iCal back in July 2002. Yet here we are five years later, and iCal's Dock icon still shows the current date only when iCal is actually running. Quit iCal, and time suddenly

reverts back—or forward, depending on your perspective—to July 17, the date on which iCal was announced in 2002.

This is odd. After all, people who regularly use iCal likely have it in their Dock and might appreciate the convenience of its Dock icon displaying the current date. If you're among the many people who want this feature, BlockSoft's iConiCal 1.2 can help.

When you launch iConiCal for the first time, you're presented with options for customizing iCal's Dock icon. In addition to forcing the icon to display the current date, iConiCal can change the icon's color to reflect iCal's status—for example, green for when the program is running and red when it's not. You can also choose whether to launch iCal when you launch iConiCal, and, if so, whether to keep iCal open afterward.

The biggest limitation of iConiCal is that changes it makes to iCal's Dock icon won't appear until the next time you launch iCal. iConiCal is a bit of a kludge—it works by replacing images inside the iCal application package, which takes a few seconds—but it works well. You'll never have to see July 17 again—or at least you'll see it only once a year.



**Change iCal's Dock-Icon Date** iConiCal forces iCal's icon to automatically display the current date, even when iCal isn't running.

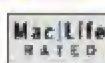




Mobile Phone with  
Bluetooth wireless technology

*"The i199 is a solid all-in-one tabletop audio solution that offers more features than many competing models... great value"*

- **CNET.com** Jeff Bakalar, June 6 2007



BluePin Hi-Fi Audio System | i199



Bluetooth Stereo Ear Clips | i212

## BluePin™ Technology, Only from iLuv It's all about **Give & Take**

iLuv's patent-pending technology BluePin lets you send and receive music wirelessly from any device with Bluetooth wireless technology for the ultimate "shared entertainment experience."



[www.i-Luv.com](http://www.i-Luv.com)

iLuv offers the most complete line of electronics and accessories made expressly for iPod and Samsung MP3 products. iLuv and BluePin are trademarks of iWIN Electronics Corp. iPod is a trademark of Apple Inc. The Bluetooth word and Bluetooth logo are trademarks of Bluetooth SIG Inc. iPod is not included. For more information on iLuv products, please call 1-866-807-5946 or 1-516-626-7188

**iLuv™**



## UTILITY

# Finder Window Manager 1.9.7

**RATING:**  **PRICE:** \$15 **COMPANY:** Jonathan Nathan **URL:** [www.jonn8.com/fwm](http://www.jonn8.com/fwm)

In this column, I've covered a number of ways to work with Finder windows, but most have focused on letting you quickly switch to particular windows or easily move and resize windows. What if you want to organize and manage your Finder windows? That's where Jonathan Nathan's Finder Window Manager 1.9.7 comes in.

Finder Window Manager is based on the idea that people use different groups of folders for different projects. The program lets you create sets of Finder windows that you can quickly switch between via a simple menu-bar menu—and it even preserves the view settings for those windows.


To create a new set, open all the windows you'd like to include in the set (and close the ones you don't want to include), arrange them the way you want them to appear on screen, and choose your preferred view options. Then choose Create New Window Set from Finder Window Manager's menu and provide a name for the set. You can create as many sets as you want.

Whenever you want to use a set of windows, simply choose the set name



**Better Window Management** Finder Window Manager lets you quickly switch between sets of Finder windows.

## PDF Roundup

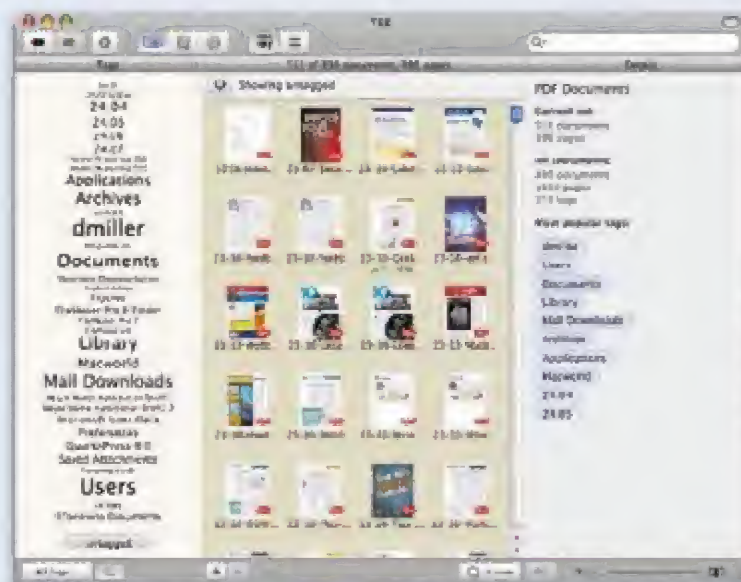
I've got PDFs scattered all over my hard drive, and it's getting harder to keep them all in order. Ironie Software's Yep 1.6.4 (; \$34; [macworld.com/2961](http://macworld.com/2961)) is here to help. Simply put, Yep is a file manager specifically designed for handling PDFs, and it does so in much the same way that iPhoto manages your photos.

Yep's most powerful, iPhoto-like feature is tagging; you can attach keywords to files and then use them to search, sort, and manage your PDFs. For example, if you've got a bunch of PDFs associated with a given project, you could use the project name as a tag and then get quick access to all the associated PDFs by calling up that project name.

Yep will also automatically tag PDFs for you using previous tags, the name of the file's home folder, Address Book contacts, and common tag-like words that it finds in the file's contents. This feature sometimes adds more tags to a file than you might want, but it's a convenient first pass at tagging your collection.

You can view PDFs within Yep or in another program you specify, export Yep's tags as Spotlight metadata, and even use Yep as a scan manager (if you save scans as PDFs).

Unlike OS X's Preview or Adobe Acrobat Reader, Yep won't let you annotate PDFs, and it can't handle file formats other than PDF. Also, its \$34 price tag might make it less appealing to the typical user. But if you need to process a lot of PDFs, Yep is quite useful. —DAN MILLER




**Organize Your PDFs** Yep helps you organize and manage the PDF documents that clutter up your hard drive.

from the Restore Window Set submenu. The process isn't instantaneous, but it's fairly quick. And every window opens in exactly the same position, with the same view options, as when you saved the set. (You can choose whether windows that aren't part of the chosen set are closed or kept open.) If you decide to modify a set, a simple Update Window Set command lets you make those changes permanent.

Finder Window Manager also provides a number of interesting actions, which the developer calls *utilities*, for arranging and managing windows. Available from the Utilities submenu, these actions let you close all but the frontmost window, stack or tile windows, clone a window (making an exact copy next to it for working with and comparing files), and more.

Finder Window Manager's other big feature is the Watcher, which monitors

Finder windows that you open and automatically customizes them according to your preferences. In other words, people who have been waiting for years for the ability to have all windows open a certain way can use the Watcher to approximate this behavior until Apple finally implements it in the Finder.

I occasionally experienced a problem with menu commands being unavailable; the developer notes that this can sometimes happen when certain third-party system tweaks are installed. But overall, Finder Window Manager worked well in my testing. 

**Dan Frakes** is a senior editor at *Macworld* and the senior reviews editor at *Playlistmag.com*. Send your thoughts on this column, or on things you'd like to see in future columns, to [macgems@macworld.com](mailto:macgems@macworld.com).



The image features a pair of Vibe duo earbuds with black and silver finishes and white ear tips. A black cable with a 3.5mm gold-plated jack and a silver inline remote is also shown. The products are set against a dark, reflective background.

introducing  
**vibeduo**

**v-moda**

for mp3 +  
iPhone



Vibe duo available at Apple Store and [v-moda.com](http://v-moda.com)

visit [v-moda.com](http://v-moda.com)







New desktop model sports a suave  
aluminum finish and an innovative keyboard

# The iMac Makeover

**L**et's face it—the iMac, Apple's  
flagship consumer desktop Mac,  
was long overdue for a face-lift.

The thin-display-on-a-solid-foot design first arrived on the scene in August 2004, as the iMac G5, and survived through the January 2006 Intel transition (the iMac was Apple's first Intel-based system). Sure, Apple has made some major improvements inside, but it's been *three years* since the iMac has gotten any cosmetic enhancements. That's definitely changed with the latest round of iMac updates.

By Jonathan Seff

PHOTOGRAPHY BY PETER BELANGER





## A New Look

Gone is the distinctive snow-white iMac case—Apple's design team has done some tweaking to the familiar all-in-one computer.

**Thinner Metal Case** Most of the latest iMac's body is made of a solid piece of anodized aluminum—taking a cue from the Mac Pro (<http://www.apple.com/macpro>) and MacBook Pro (<http://www.apple.com/macbookpro>). The entire back is a matte black with a shiny black Apple logo. Apple says that the silver-and-black look appeals to professional users, who are opting for iMacs more and more, but also to consumers looking for something a little more, well, mainstream. The overall look resembles an LCD television you might have in your living room.

Interestingly, Apple decided to keep the gray power cord, white mouse, and white cables for the mouse and keyboard. Also, the keyboard retains its gleaming white keys—a design, Apple tells us, that looks better than black keys.

Another thing you'll notice right away when looking at the iMac's profile is that it looks thinner than the old design. Looking down from the top, the case also looks very sleek, but since the back of the iMac bulges a bit more than before, the overall depth is about the same as it was in the previous generation. The new iMac's thinness is something of an optical illusion, and a very effective one.

**Glossy Wide Screen** Until now, all iMacs have had matte screens. The current lineup features a piece of glass covering the front of the display, which gives it a much more reflective quality (similar to that of the MacBook [<http://www.apple.com/macbook>] and glossy-screen MacBook Pro).

The glass makes the display bright and crisp. Colors pop, blacks are rich, and images look very pleasing. I've come to enjoy glossy displays on Apple's laptops, but under certain conditions the glossiness could be problematic on these large desktop models. If your iMac is set up in a place with a lot of light, the display can act very much like a mirror—

especially in areas where the screen is dark or black. Some people may find the glossy screen distracting, especially since the 20- and 24-inch displays are bigger than anything you'll find in Apple's MacBook line. And unlike with a laptop, it's not easy to fiddle with the iMac's position and angle to find the perfect placement (although you can train your eyes to look beyond the glass and ignore your reflection after a while). It's really a matter of personal preference, so try to take a look at one of the new iMacs in person to make sure that the screen won't be a problem for you.

But that brings up another issue—the color shift that happens as you move your head to more extreme viewing angles. Especially on the 20-inch models, I noticed some rather strong shifts in color and contrast, including colors looking washed out, as I viewed the screen from above and side to side. Apple says that the 20-inch screen has a viewing angle of 160 degrees (both up and down and side to side), which is 10 percent less than the 24-inch model's 178 degrees. The difference



PHOTOGRAPH COURTESY OF APPLE



was very noticeable when I viewed the two sizes next to each other, with the 24-inch model retaining much better color and contrast as I moved my head around it. (The 24-inch model is also nearly 33 percent brighter than the 20-inch iMac, which, surprisingly, wasn't as obvious as the much smaller change in viewing angle.)

How much of a difference this makes will depend on how you use your iMac. For most people who park themselves in front of the screen to work or play, a properly calibrated display will be just fine. If you work in an environment where you have lots of people gathered around your computer

prefer larger displays. I think that was a good decision, as I consider the 20-inch size to have been the sweet spot for some time—big enough to offer 1,680-by-1,050-pixel resolution, and for the same price as the 2GHz 17-inch model of yore. And the 24-inch, 1,920-by-1,200-pixel model doesn't feel like overkill (plus, that size is now \$200 less than before).

**iSight** This iMac includes a new iSight camera that blends almost perfectly into the black screen border—fixing the one blemish on the front of the previous model. As with other iSights, Apple's software limits its resolution to 640 by 480 pixels, which pro-

## I've come to enjoy the glossy displays on Apple's laptops, but the glossiness could be problematic on desktops.

to look at mock-ups, for example, then the 24-inch model makes more sense, both in terms of color stability and overall screen size. At the same time, compared with the older 20-inch white iMac, the new 20-inch version is much brighter and sharper when viewed straight on.

**Screen Size** The new iMac comes in 20- and 24-inch sizes only. Apple abandoned the old-standard 17-inch size, presumably because most customers

vides good-quality video and stills. The microphone is now located at the top of the display, and has eight tiny laser-cut holes for picking up sound. It looks elegant, and a person on the other end of a video chat had no problem hearing my voice.

**RAM Access** As with the previous design, the RAM access door is located at the bottom of the iMac, but it has a few differences. The new iMac has only a single screw (instead of two) attaching the RAM door—Steve Jobs says that this is the only external screw on the entire computer. Removing the door reveals two RAM slots, as in the older design, but the slots are now placed side by side (rather than stacked vertically). And, borrowing an idea from its laptop models, Apple has replaced the plastic levers with tabs to make removing and replacing RAM easier than before—a nice touch.

## Keyboard

Perhaps the most radically redesigned element of the new iMac—and the most controversial—isn't part of the computer itself; it's the keyboard that accompanies it. The new keyboard uses the same type of keys (with identical spacing) as the MacBook, but they're

### 20-Inch iMac Core 2 Duo/2GHz



**PROS:** Compact, all-in-one design; new keyboard; good price; FireWire 800 port; built-in wireless capabilities.

**CONS:** Viewing angle not as good as that of the 24-inch model; glossy screen may frustrate some users.

**PRICE:** \$1,199

**COMPANY:** Apple, [www.apple.com](http://www.apple.com)

### 20-Inch iMac Core 2 Duo/2.4GHz



**PROS:** Compact, all-in-one design; new keyboard; same performance as 24-inch model; FireWire 800 port; built-in wireless capabilities.

**CONS:** Viewing angle not as good as that of the 24-inch model; glossy screen may frustrate some users.

**PRICE:** \$1,499

**COMPANY:** Apple, [www.apple.com](http://www.apple.com)

### 24-Inch iMac Core 2 Duo/2.4GHz



**PROS:** Compact, all-in-one design; big, beautiful screen; new keyboard; built-in wireless capabilities.

**CONS:** Glossy screen may frustrate some users.

**PRICE:** \$1,799

**COMPANY:** Apple, [www.apple.com](http://www.apple.com)

## Macworld Lab Test

### Speedmark 4.5 Test Results

20-inch iMac Core 2 Duo/2GHz	257
20-inch iMac Core 2 Duo/2.4GHz	280
24-inch iMac Core 2 Duo/2.4GHz	279
24-inch iMac Core 2 Duo/2.16GHz	256
20-inch iMac G5/2.1GHz	195

Longer is better. Reference systems in *italics*. Speedmark 4.5 scores are relative to those of a 1.25GHz Mac mini, which is assigned a score of 100. All systems were running Mac OS X 10.4.10 with 4GB of RAM and with processor performance set to Highest in the Energy Saver preference pane when applicable. —MACWORLD LAB TESTING BY JAMES GALBRAITH, JERRY JUNG, AND BLAIR HANLEY FRANK

For complete benchmark test results, please visit [macworld.com/](http://macworld.com/)

3044

placed atop a thin piece of aluminum that matches the iMac's body.

As a MacBook owner, I've come to enjoy—in very short order—these new keys. And they carry over well to the iMac's keyboard too. While they don't provide you with the same degree of tactile or auditory feedback as the previous iMac keyboard, the keys feel soft and comfortable.

The keyboard's thin design also gives it a sleek, modern look. But more than that, the fact that the front edge is only about a third of an inch high means that it keeps your wrists and hands in a more natural, arched position (something piano players learn early). That hand position is generally considered more ergonomic.

This keyboard is also the first from Apple to have built-in USB 2.0 ports (previous keyboards have been limited to slower USB 1.1 speeds). These ports are now on the sides of the keyboard (not the back), and Apple's included



**Ports** The new iMac sports familiar and new ports. At the bottom of the iMac's back, you'll find the following: an analog and digital audio output port **A**, an analog and digital audio input port **B**, three USB 2.0 ports **C**, one FireWire 400 port **D**, one FireWire 800 port **E**, a Gigabit Ethernet port **F**, and a mini-DVI connector **G**.



Mighty Mouse comes with a shorter cord because the mouse cable no longer needs to be long enough to plug into the back of the keyboard. Apple also tells us that the keyboard acts as a USB 2.0 hub; it can provide enough power for one USB device (an iPod, an iPhone, a digital camera, and so on) in addition to a mouse. So you can plug a device into the keyboard instead of into one of the three USB 2.0 ports on the back of the iMac.

Apple has also changed some aspects of the keyboard configuration. Most of the first 12 function keys (there are 19) serve double duty, with dedicated keys for controlling brightness, activating Exposé and Dashboard, adjusting system volume, and controlling iTunes (play/pause, previous track, and next track). Many companies make keyboards with media controls, but this is the first such keyboard from Apple, and it puts some useful, nicely labeled features at your fingertips. And Apple has, once and for all, removed the Apple icon from its  $\mathbb{A}$  key and replaced it with the word *command* (retaining the  $\mathbb{A}$  symbol as well), bringing an end to the last holdout from the days of the Apple II.

In some ways, I think the keyboard design is more of a triumph than the iMac itself (and for \$49, you can add it



**I think the keyboard design is more of a triumph than the iMac itself.**

to an earlier Mac model as well), and I highly suggest giving it a chance before writing it off as too different. For \$50, you can also upgrade to the new Bluetooth mouse and keyboard (see "Cutting the Wires" for more details on the keyboards).

## Technology

Except for the \$999, 17-inch iMac, all of the previous-generation iMacs were on equal footing in several key areas—and that trend continues here.

All new models include 1GB of RAM in a single slot. For many people, that will be enough. But gearing this system to appeal to both consumers and pros alike, Apple makes it easy to add RAM in the free slot. And the iMac can now address 4GB of RAM (up from 3GB) with two 2GB SO-DIMMs.

The new iMacs include the latest Core 2 Duo processors from Intel in 2GHz and 2.4GHz speeds (plus a 2.8GHz Core 2 Duo Extreme build-to-order option). The previous models ranged from 1.83GHz to 2.16GHz in the standard configurations. The new



**Keyboard** The iMac includes Apple's new thin keyboard (left), with keys like those on the MacBook and two recessed USB 2.0 ports. The optional Bluetooth version (right) is narrower (it doesn't include a number pad), for better portability.



chips also include a faster system bus—800MHz, up from 667MHz; this theoretically speeds up the line of communication between the iMac's processor and the main memory (although the RAM still runs at 667MHz, so the benefit isn't noticeable right now).

Hard-drive space has increased, from 160GB to 250GB on the low-end model, and from 250GB to 320GB on the other models. And Apple now offers up to 1TB of storage (for an additional \$550) for the 24-inch model with a single drive.

There are still three USB 2.0 ports on the back, but Apple added a neat feature that lets you charge an iPod from one of these ports even when your iMac is sleeping. Previously, the computer had to be both on and awake to charge your iPod. Plus, a FireWire 800 port now comes standard on all iMac models (before, only the 24-inch model had one). So users of the 20-inch iMacs lose one standard FireWire 400 port to make room for the FireWire 800 support. For tasks like plugging in a backup hard drive, that extra data bandwidth really comes in handy—yet another nod to the pro user.

The mini-DVI port lets you connect to an external monitor that has up to a 1,920-by-1,200-pixel resolution (the same resolution as Apple's 23-inch Cinema HD Display) for either mirroring what's on your screen or extending your desktop to another display.

The built-in speakers (located at the bottom of the case—audio comes out through holes on the side of the RAM access door) produce very good sound, so you don't necessarily need to buy an external speaker system to enjoy music, movies, and games on the iMac.

All models also include an 8x CD- and DVD-burning SuperDrive, and dual-layer writing has increased from 2.4x to 4x speeds since the last round of iMacs.

## Performance

Design is an important component of any Mac, but a computer has to do more than sit around looking pretty. In general, I found that all models felt

## Cutting the Wires

Thanks to its all-in-one approach, the iMac already eliminates many of the cords that typical desktop systems require. But if even the remaining cords are too many for you, you can spend a little extra to get the new \$79 Apple Wireless Keyboard, which connects to your Mac via Bluetooth.

Like the standard keyboard, the wireless version has been redesigned to match the iMac's aluminum case. Gone is the thick, white-and-clear-plastic design of previous models. In its place is a compact, low-profile keyboard that features a sturdy aluminum base and white keys. The design makes the keys easier to press than those on Apple's previous keyboards, but it provides a very different tactile response. People who haven't used a MacBook may find that the new design requires some getting used to.

But unlike the new standard keyboard, which features a full complement of keys (109 in all), the wireless version has a mere 78. Its layout omits the numeric keypad, seven function keys, and the standard home, end, page-up, page-down, delete, and insert keys. This makes the wireless keyboard substantially narrower than the wired model. However, the keyboard area retains full-size keys and standard spacing.

In fact, apart from incorporating the same new F-key functionality as the wired keyboard—including keys that control volume, display brightness, iTunes playback, and so on—the wireless model is identical in layout to the keyboard found on the MacBook, down to the fn key at the lower left and smaller arrow keys located under the shift key on the right.

The compact design will make the new wireless keyboard especially attractive if you're looking to reclaim valuable desk space or you like to use your keyboard on your lap and you're willing to forgo the convenience of a larger keyboard.

Both keyboards require Mac OS X 10.4.10 or later, as well as an OS X keyboard software update for full functionality. —DAN FRANKS



snappy and responsive. But Macworld Lab also ran the three models through our standard suite of tests to see how well they perform, as well as how they compare with the best of the last generation of iMacs. The internal changes between old and new iMacs are minimal, but the latest crop does show some improvements. In the Speedmark test, the new 2GHz 20-inch model eked out one more point than the previous high-end system, the 2.16GHz 24-inch model—that's virtually the same performance for \$800 less. But the new model's frame rate really lagged in the Unreal Tournament 2004 test: the 2GHz 20-inch model displayed 21 per-

cent fewer frames per second than the then top-of-the-line video card in the older iMac—even with twice the graphics memory.

As you might expect, the two new 2.4GHz models performed nearly identically (the only difference between them being the display size). Each bested the old high-end model by almost 10 percent in the Speedmark score. The new iMacs shaved 11 seconds off the Adobe Photoshop CS3 test (a 16 percent improvement), 16 seconds off our zip-archive-creation test (11 percent better), and 7 seconds off encoding a CD as MP3 files (also an 11 percent improvement). All in all, the new iMacs show



# First Look: iLife and iWork '08



**New Events** Instead of organizing your photos into dated Rolls, iPhoto '08 organizes them by Event.

## iLife '08

### iPhoto '08

The bulk of the enhancements in the new iPhoto are about organizing, rather than editing, your photos.

Instead of Rolls (which group photos by import date), your photos are now organized into much more fluid Events. While importing, iPhoto can break pictures into separate Events, based upon criteria that you specify; you can also merge multiple Events into one, or split one into many.

While iPhoto has had some Web integration tools since it made its debut in 2002, the new version's Web Gallery ups the ante considerably. You set up the pictures you want in your gallery and then publish it to iMac. You can make those pictures public or private, or allow viewers to subscribe to the gallery via RSS. The downside is that the Web Gallery feature relies on iMac; if you don't have an account, you'll have to create an album in iPhoto and use the Export To iWeb command or export and add your photos to an existing Web service, such as Flickr. —RICK LEPAGE

### iMovie '08

The differences between iMovie '08 and its

predecessor are noticeable immediately. The movie viewer is at the upper right instead of the upper left; the movie you build is now at the upper left. Also, clips look different. Instead of a thumbnail of a clip's first frame or a bar indicating the clip's duration, that bar now arranges multiple clips in a filmstrip-like view.

Some features from iMovie HD 6, including themes and DVD chapter markers, are simply gone. More disturbing to me is the absence of a time code. Footage is no longer expressed in terms of minutes:seconds:frames. Everything is now counted in seconds and tenths of seconds, so it's more difficult to perform precise edits.

iMovie '08 can't open old iMovie projects. It can import their raw footage, but forget about transitions and effects. One positive note is that iMovie can now import most current DVD and tapeless video formats, such as AVCHD. —JEFF CARLSON

### iWeb '08

iWeb has not undergone any revolutionary

changes since its previous iteration. Instead, it has a few new obvious features. For example, the program has 14 new templates, for a total of 26. The new iWeb also makes it easy to copy and paste Web code from YouTube, MySpace.com, and other Web sites.

One of the most exciting—and needed—features added to iWeb is the ability to publish directly to your own Web domain instead of to your iMac URL. You still have to have a iMac account, but you can select the Personal Domain option and point it to a domain of your choosing. —JASON CRANFORD TEAGUE

### iDVD '08

It's clear that Apple is now pushing iMac, rather than DVDs, as the preferred way to distribute video content. But that's not to say that there's nothing new in iDVD '08.

The new version delivers 10 new themes, each containing professional-looking animation and drop zones where you can add your own photos or movies. Font choices for button text now appear beneath the label, and a pop-up menu in the Buttons pane reveals text underlines, bullets, and shapes for menu objects. There's also a new Professional Quality encoding option.

One thing that's still missing: Apple has not implemented HD DVD or Blu-ray burning capabilities. —JEFF CARLSON

### GarageBand '08

GarageBand's fourth iteration has improvements that are largely targeted at musicians and musician wannabes, though podcasters will find a couple of new features to like.



**Interface Changes** The movie viewer in iMovie '08 is at the upper right; the movie you're building is at the upper left.





**Numbers Templates** Sure, Excel has templates, too. But the ones in Numbers are far more useful—enough so that you'd want to use them.

The Magic GarageBand feature lets you add and subtract instruments from built-in band-in-a-box tracks. The Arrangements feature lets you view your music by sections (for example, by verse, chorus, verse). With multitrack recording, you can loop-record and automatically save "takes" from each pass. With Visual EQ, you can graphically adjust frequencies in each of your tracks. And an automation feature lets you change a track's EQ and effects. —CHRISTOPHER BREEN

## iWork '08

### Numbers '08

For decades, every spreadsheet program has been basically identical: you get a grid of rows and columns on screen, and you place your numbers and text inside those cells. The new spreadsheet program in the updated iWork suite, Numbers, does things its own way.

Instead of showing you a blank grid of rows and columns when you start, Numbers gives you a completely blank sheet, without the grid. You position tables anywhere on the sheet. A Numbers document can contain any number of sheets, which in turn can contain as many tables as you want.

This approach makes it easy to get good-looking printouts of your sheets. In Excel, getting good printouts takes a lot of effort in formatting rows, columns, and cells. In Numbers, you just position tables wherever you want them to appear.

Charts are easy, too. Select the data you want to chart and tell the program what type of chart you want—Numbers does the rest. That said, Numbers doesn't offer as many chart options as Excel. It has just nine basic chart types; Radar, Bubble, Stock, and Doughnut aren't among them.

Numbers' templates are useful, too. Need a report that compares a bunch of alternatives, in a format suitable for showing to the boss? Just pick the Comparison template. Of course, Excel has templates, too. But in all my years of using Excel, I used them rarely, and only as starting points. Numbers' templates, on the other hand, look good enough to use as they are.

Apple says that Numbers can import and export nearly any Excel document. Indeed, every single Excel file I tried to open in Numbers did so. But unfortunately, I had some sort of problem with nearly every one. Most of those problems were attributable to Numbers' lack of support for all of Excel's functions. (The program comes with roughly 165 built-in functions—about 100 fewer than you'll find in Excel.)

The other big problem area is macros: Excel supports them, and Numbers doesn't. —ROB GRIFFITHS

### Keynote '08

From what I've seen so far, Keynote '08 is a winner that fills in many of the gaps in earlier versions.

Previously, Keynote let you animate graphic and text objects, but only on its terms: for example, you could make a circle fly onto the screen, but you couldn't move it from the top left to the bottom right. Path animation now lets you specify a motion path for any object on the slide. Other actions let you change an object's rotation, size, or opacity, and you can mix and match actions with build effects.

The new Smart Build feature now lets you program a sequence of pictures in a jiffy: You simply drag and drop the images from the desktop or Media Inspector, select a display effect, and you're done.

No Keynote update would be complete without a few flashy new builds and transitions. My favorites include Flame, an effect that makes objects appear in a wall of fire, and Confetti, a build that assembles objects from a swarm of small particles.

Keynote '08 handles QuickTime movies a bit differently; you can now start movies with a mouse click, and you can trim them without the help of QuickTime Pro or another movie editor. —FRANKLIN N. TESSLER

### Pages '08

While earlier versions of Pages were excellent word processing and page-layout programs, they didn't make the grade when it came to sharing documents—especially those with lots of graphics or those that used Microsoft Word's Track Changes feature.

Not so with Pages '08. In my initial testing, I've found that Pages works extremely well with Word. Pages documents—even those with highly formatted graphics—now export almost flawlessly to Word. Changes marked in Word appear in Pages without a hitch.

Word compatibility isn't the only improvement. There are now two distinct document-creation modes: Word Processing and Page Layout. Word Processing mode is more text-focused, while Page Layout mode puts the emphasis on the objects on the page, allowing you to easily manipulate text boxes, images, tables, charts, and other objects.

Pages '08 also offers some nifty new table tools. You can conditionally format cells now—for example, shading a cell white if the number in it is positive, or red if it's negative. Calculating cells is much more elegant: a calculation tool pops up right next to the cell rather than in a separate window. There are also better visual cues when you link text between text boxes in your document, making it easy for you to see how the text in a box at the front of your document flows to a box at the back of your document. —JEFFERY BATTERSBY







## The Mac Mini Gets an Update

Almost lost in all the noise about new iMacs, iLife '08, and iWork '08 is an updated version of the modest Mac mini. Apple's low-end consumer computer is externally indistinguishable from its predecessor, but inside its case lies a faster, more powerful machine.

An Intel Core 2 Duo processor replaces the previous model's Intel Core Duo processor. The \$599 entry-level model features a 1.83GHz processor, and the \$799 higher-end system now offers a 2GHz processor. According to Apple, the Core 2 Duo processor provides a 39 percent speed boost over the Core Duo. (For Macworld Lab benchmarks, go to [macworld.com/3045](http://macworld.com/3045).)

The revised Mac mini offers twice the memory capacity of previous standard models—up to 2GB. However, gamers and others looking for improved graphics performance will likely be disappointed that the Mac mini still uses Intel's integrated GMA 950 graphics processor, with 64MB of video memory borrowed from the main memory.

The low-end model features an 80GB hard drive and a DVD-ROM/CD-RW Combo drive. The high-end model has a 120GB hard drive and a SuperDrive that supports double-layer burning for DVD-R and other optical media. Like the previous models, the new mini generation supports 802.11g Wi-Fi networking and Bluetooth 2.0+EDR (Enhanced Data Rate), for wirelessly connecting to keyboards, mice, and other devices. Both systems come with Mac OS X 10.4 (Tiger) and iLife '08 pre-installed. —PETER COHEN

modest speed gains over the previous iMac generation.

The new iMacs use the ATI Radeon HD series graphics processors. The graphical performance of both the Radeon HD 2400 XT and the Radeon HD 2600 leaves the new iMacs in the mainstream performance category when it comes to games and 3-D applications, but it also paves the way for future capabilities. The Unified Shader Architecture that Apple and ATI/AMD tout will make it easier for game developers and others to show off fancy new special effects in their software. The new chips can also perform 128-bit High Dynamic Range (HDR) rendering, which will give games more-intense, realistic lighting and shadows. As with the low-end model, the only place where the faster iMacs really fell behind was in the Unreal Tournament test (albeit only slightly), illustrating that the new graphics have a lot of

future potential that's not showing up in our tests. This untapped potential means that your iMac will last longer before becoming outdated. But in playing 1080p HD movie trailers from Apple's Web site, I found no deficiencies when it came to the onboard graphics—and for the record, playing a solo match in Unreal was smooth and enjoyable. So unless you're a hard-core gamer, you probably won't miss those extra 2.4 frames per second.

## Macworld's Buying Advice

With large displays, room for a lot of internal storage and RAM, and a striking new design, the latest iMacs are a nice step forward—and a good value to

boot. Performance gains are minimal over the last-generation iMacs; but as computers that straddle the line between consumer and professional systems, they give enough to people on both ends of the spectrum to be worth serious consideration. The two biggest changes—the glossy display and the new keyboard—may have more of an impact on your buying decision than anything inside the iMacs.

If you're looking for a performance-for-the-price model, then the 2.4GHz 20-inch iMac is the most well-rounded of the group. You could save \$300 by buying the less-expensive 20-inch model, but you'd lose a little performance, hard-drive space, and graphics power, and you'd probably feel the need to replace your computer that much sooner. But with its new, lower price, the 24-inch model is the real champ. It performs the same as the 20-inch model with the same components, but the larger screen is a joy, offering more pixels and a better overall viewing experience. **X**



PHOTOGRAPH COURTESY OF APPLE



The smartest way to protect the world's most revolutionary phone.

PREMIUM LEATHER

IMPACT RESISTANT SHELL

FULL FACE SCREEN PROTECTION



*Signature Leather Case*



*Signature Case and Leather Holster*



*Leather Flip Case*

•• Protect your digital lifestyle.™

Available at select AT&T stores nationwide

case-mate

Visit [www.case-mate.com](http://www.case-mate.com) for more information



# Now Playing

Watching  
television  
on your  
computer  
has never  
been easier

By Christopher Breen  
and Michael Gowan

Photograph by Peter Belanger





The phrase *watching TV* used to mean sitting on the couch in front of a stationary set. But these days, you can watch an episode of *Law & Order* on your iPod or your computer as easily as you can on the boob tube in the den.

Television networks and other companies are taking advantage of modern technology to bring television viewing to you on your terms. We're here to show you how to find streaming programs you can enjoy from the comfort of your Mac, as well as how to set up a Mac-based TV tuner and use the EyeTV software to watch TV on your Mac, iPod, or iPhone.





**ABC** The interface for ABC.com's video section shares its look with iTunes' Cover Flow.

# Stream Programs to Your Mac

**U**h-oh—when your DVR lost power during the season finale of *Heroes*, you thought you'd have to wait for the DVD release to find out if Sylar blew up New York after all.

But you didn't need to worry; the Internet could have saved you when your television catastrophe struck—and you didn't have to download episodes illegally or buy them from the iTunes Store. To catch up on the breakthrough drama, all you had to do was head over to NBC.com, where you could have streamed video of that final episode (along with every episode from the first season).

This past season, many television networks—not just NBC—finally began to embrace the Web fully. All the major ones offer streaming episodes on their Web sites. But that's not the only place you can find free video to stream to your Mac—many sites offer content, both live and on demand. While the selection, quality, and viewing experience won't yet replace your living-room TV set, if you're seeking

some video entertainment to fill your leisure time, all you need is a Mac, an Internet connection, and a browser pointed in the right direction.

## Behind the Streams

The streaming Internet video revolution led by YouTube owes a debt to the emergence of Flash video. Flash creates relatively small files of a quality good enough so that they look and sound similar to what you get on a TV screen—and the ubiquitous Flash plug-in for browsers makes operating systems and browser capability a non-issue. Flash video also provides more content control and better protection than other downloadable file formats.

Although Flash is important, other formats are finding their way to the streaming world—or, as in the case of RealVideo, they're reemerging. CBS and many live streaming sites, such as BBC News, are using RealVideo. ABC, Fox, and the CW all use a new technology delivered by Move Video. Move's player is capable of HD quality—1,280-by-720-pixel resolution. ABC recently added HD streams of four shows (one episode each) to its player. Except for *Lost*, however, the shows didn't look quite as good as they do with the HD reception I get from my over-the-air antenna at home.

I watched a lot of shows in my research (for scientific reasons, of course) and Flash did the best job overall. It worked well in Safari and Firefox without requiring any extra downloads, and its playback tended to be the smoothest, though not the most detailed. That honor went to Move's player on ABC.com: it

## Get Better Reception

If the video you're watching on your Mac isn't clear, here are some ideas on how to improve your experience.

**Go Small** If the picture is jumpy or pixelated, try switching to a smaller size—the smaller file may be easier for your computer to process.

**Buffer It** Many on-demand streams will continue to download the video file after you click on the pause button. If you're waiting too long for more video to download, click on pause and walk away for a few minutes. When you come back, you should have a decent amount of buffered video to watch as the rest comes down the pipe.

**Plug In** Many of these sites require that you download additional programs or browser plug-ins to receive the picture. Make sure that you have up-to-date versions of Real's free RealPlayer ([www.real.com](http://www.real.com)) and Microsoft's free Windows Media Player ([www.microsoft.com](http://www.microsoft.com)), or Flip4Mac's free Windows Media Components for QuickTime ([www.flip4mac.com](http://www.flip4mac.com)). Older versions of these applications might not handle the stream properly or efficiently.

**Download It** If streaming isn't working for you, just download the file to view later. Google Video and other sites allow downloads of some files, and the Web is full of tips on how to capture Flash video files.



offered the crispest detail, and worked well with computers that met its minimum specs—16MB of VRAM being the most important. Videos streamed in RealVideo often looked blocky and stuttered for a few seconds before clearing up. Windows Media streams were a big headache—many didn't even play on a Mac (for tips on improving playback, see “Get Better Reception”).

## What's Playing

When it comes to traditional video entertainment such as TV shows and movies, your best bets are network sites, aggregate on-demand sites, and live streams.

**Network Sites** Faced with the prospect of Napster-style piracy, the major networks are trying to get ahead of the curve. This past TV season, they all offered streams of some portion of their fall lineup. The content varies, but the focus seems to be on new shows and those for which they're trying to build a following (see “What's Streaming on the Web” for details). Which site you'll like best really has to do with what shows you watch. In my case, I kept coming back to NBC since I watch a lot of its shows, and NBC offers every episode for most of the previous seasons of the shows it currently streams. CBS's catalog seemed the least consistent; while it has episodes from almost every show on

the network (*How I Met Your Mother*, all three *CSI* shows, and the like), the selection is pretty random—one episode from early in the season and another from later, with large gaps in between.

With the big networks, you can watch an entire episode, rewind it, skip ahead, and pause it. ABC, NBC, and CBS let you watch in a full-screen mode that takes over your entire display; Fox and the CW don't have the same option, but do offer a bigger version than the default. That has its advantages, since it keeps the video size from stretching beyond its native resolution. On a 24-inch monitor, a full-screen version of NBC's stream looks pretty blocky when viewed from two feet away. ABC's looks better, but still seems ungainly on a large monitor. Both NBC's and ABC's full-screen modes look sharp on a 15-inch MacBook Pro (read about my results in “Getting the Picture”).

Streams are free on all the network sites, but, just as with regular TV broadcasts, they include ads—usually 30-second embedded ads. NBC, for example, breaks its episodes into multiple parts, often with an ad before each one. Although you'll find that annoying if you're used to purchasing ad-free shows from the iTunes Store, it seems a small price to pay for the convenience of watching free shows whenever you want

to. You can't fast-forward past the ads, but there's no reason you can't check your e-mail during the break. If you're watching in full-screen mode, you can switch to a smaller size without losing your place in the video, except for a momentary skip when you change sizes.

## Getting the Picture

If you haven't tried streaming video since the early part of the century, you may expect a blocky, pixelated picture and jumpy, out-of-sync audio. But today's streaming video can be as good as television if you have the right stuff. Your Internet connection has something to do with it, but so does the horsepower inside your machine.

If you have a broadband connection, you should have enough bandwidth to get a good-quality stream. The higher-quality, higher-resolution streams can require up to 2,000 Kbps—beyond the scope of basic DSL—but most use between 250 and 750 Kbps. In practice, I found processor speed and video RAM more important for good video quality. I tried three different Macs over a 1.5-Mbps DSL connection: a 600MHz G3 iBook with 648MB of RAM and 8MB of video RAM; a 1.2GHz G4 iBook with 768MB of RAM and 16MB of VRAM; and a 2.4GHz MacBook Pro with 2GB of RAM and 256MB of VRAM. Here's how they performed.

### NBC.COM: *HEROES*

**iBook G3:** Some audio, but poor video.

**iBook G4:** Audio flowed, but video bumbled.

**MacBook Pro:** Like watching a television—smooth video and synced audio.

### ABC.COM: *LOST*

**iBook G3:** Coughed and crashed—no video or audio.

**iBook G4:** Grab the magnifying glass—video and audio were smooth when set to the smallest picture size but jumpy at normal size.

**MacBook Pro:** Who needs cable? I could watch this all night.



**Joost** The software's controls look slick, and so does Gabe Kaplan in an old episode of *Welcome Back, Kotter*.



**On Demand** YouTube, Google Video, and many other Web sites got their reputations mostly through user-created content, but these sites also offer professional-quality clips and full shows. Each of the sites excels at one or two types of video. If you're a Charlie Rose fan, Google Video is the place for you—a large back catalog of his shows is available there, free to stream. The French site Dailymotion features some great jazz videos from French and German TV in the 1940s and 1950s.

But how do you zero in on the kind of content you're looking for? These sites have so many videos that browsing won't do the trick. Searching can narrow things down. For example, go to Google Video and search on "Cary Grant." You can then spend your afternoon enjoying *His Girl Friday*, now in the public domain. Try searching for your favorite actor, director, or genre—you'll find many good selections. Use this hunt-and-peck method on each of the aggregate on-demand sites to find the ones that suit your tastes best.

Once you've found something you want to watch, you may be able to view it offline. Google Video now lets you down-

load many of its videos to your desktop or transfer them to your iPod (this works only if the content owner enables the option). For other sites, you may be able to download the Flash video file with a Firefox add-on like DownloadHelper's free media download extension ([www.downloadhelper.net](http://www.downloadhelper.net)). Then, using software such as Techspan's free iSquint ([www.isquint.org](http://www.isquint.org)), you can convert FLV files to MPEG-4 or H.264 and put them on your iPod. Stinkbot's \$15 TubeSock ([www.stinkbot.com](http://www.stinkbot.com)) program accomplishes the same goal in one package. This option's legality may be questionable, however, depending on who owns the copyright and what rights the owner has given the user.



**NBC** You can watch every episode of *30 Rock* and other shows on the network's Web site.

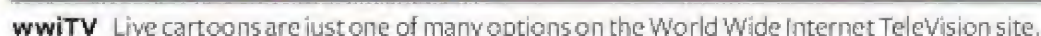
A new entry in the on-demand video field has the potential to greatly enrich the selections available. Joost, a peer-to-peer application (currently in beta) from the creators of Skype, features programs from many providers, including Warner

## What's Streaming on the Web

Site	URL	Video Technology	Video Quality	What's On
ABC	<a href="http://abc.go.com">abc.go.com</a>	Move Video	Very good	Select prime-time shows including <i>Lost</i> , <i>Desperate Housewives</i> , and <i>Ugly Betty</i> ; previous two to five episodes
BBC News	<a href="http://news.bbc.co.uk">news.bbc.co.uk</a>	Windows Media, RealVideo	Very poor	Headline news updated 24 hours a day
CBS	<a href="http://www.cbs.com">www.cbs.com</a>	RealVideo	Fair	Select prime-time and daytime shows, including the <i>CSI</i> franchises, <i>The Unit</i> , and <i>As the World Turns</i> ; select episodes
Channelchooser	<a href="http://channelchooser.com">channelchooser.com</a>	Windows Media, RealVideo	Poor	Live streams of television stations, including movie classics, cartoons
The CW	<a href="http://video.cwtv.com">video.cwtv.com</a>	Move Video	Good	Select prime-time shows such as <i>Supernatural</i> and <i>Everybody Hates Chris</i> ; four to six episodes per show
Dailymotion	<a href="http://www.dailymotion.com">www.dailymotion.com</a>	Flash video	Fair to poor, depending on the source	Some television shows, including many classics from the 1940s and 1950s
Fox	<a href="http://myspace.com/fox">myspace.com/fox</a>	Move Video	Good	Select prime-time shows, such as <i>Bones</i> , <i>Prison Break</i> , and <i>Hell's Kitchen</i> ; some with all episodes, some with select episodes
Google Video	<a href="http://video.google.com">video.google.com</a>	Flash video	Fair to poor, depending on the source	Some television shows such as <i>Charlie Rose</i> , public domain films
Joost	<a href="http://joost.com">joost.com</a>	P2P software	Very good to poor, depending on the source	Shows from a variety of content providers, including <i>Babylon 5</i> and <i>The Ben Stiller Show</i> and movies such as <i>Dragonslayer</i>
MLB	<a href="http://mlb.tv">mlb.tv</a>	Windows Media	Fair	Live baseball games, highlights
NBC	<a href="http://nbc.com">nbc.com</a>	Flash video	Poor	Select prime-time shows such as <i>Friday Night Lights</i> and <i>The Office</i> ; all episodes
NHL.com	<a href="http://centerice.nhl.tv">centerice.nhl.tv</a>	Windows Media	Fair	Live hockey games, highlights
wwiTV	<a href="http://wwitv.com">wwitv.com</a>	Windows Media, RealVideo	Poor	Live streams of stations from around the world, including movie classics, cartoons



Channelchooser and wwiTV (World Wide Internet TeleVision) are two of the better implementations of this type of video stream. You'll find an apparent glut of viewing options in many categories—Sports, News, and Movies—from stations around the world. But even on these relatively straightforward sites, you run into dead feeds and links that send you to other sites instead of providing the stream itself. I found it especially difficult to watch movies and TV shows, since



One good reason to watch live TV is

For a sports fan, the promise of live broadcasts available on the Web is enticing. It opens up the option of watching your favorite team no matter where it's playing or where you are. MLB.com has made that promise a reality—for a fee, of course. The MLB.TV Premium service costs \$20 a month or \$120 for the season and features 700-Kbps streams. The site also offers free highlights if you missed *Baseball Tonight* yesterday. NHL.com has a similar deal for hockey fanatics.

Streaming video should soon extend beyond television into the realm of modern films. Netflix currently offers its Windows users select movies for streaming as part of all its monthly subscription packages (its three-at-a-time unlimited rental plan includes 17 hours of streamed video per month, for example). The company hasn't given a definitive timeline for bringing that service to the Mac, but says that its goal is to reach any screen you can watch movies on—including the Mac's. Meanwhile, you can get the service on an Intel Mac if you install Windows and access it via Apple Boot Camp or Parallels Desktop. I tried the service on a Windows PC, and the quality and experience were good, so Mac users have something to look forward to. —MICHAEL GOWAN







# Watch and Record Live Television

**D**VRs, such as the ubiquitous TiVo and even those nameless boxes that many cable companies provide, have changed the way we record and watch TV. While they do a great job of time-shifting your favorite TV programs, DVRs either tether you to your TV or require extracting and converting content for other uses. But with a Mac-based DVR and a little know-how, you can watch shows on your beautiful Apple Cinema Display or your laptop—or encode them and use iTunes to put them on your iPod, iPhone, or Apple TV.

## Gear Up

Before getting started, you'll need suitable hardware and software.

**TV Tuning Device** I recommend Elgato Systems' EyeTV tuners ([www.elgato.com](http://www.elgato.com)) for their simplicity and powerful hardware-software combination. Which one you choose will depend on how you plan to use it (for more hardware choices, see "Other TV Tuner Options").

The newly released \$200 EyeTV 250 Plus is a small white box that connects to your Mac's USB 2.0 port. It has both composite and S-Video ports and can record analog NTSC television (the standard in North America) and free, over-the-air ATSC digital television. It

includes a hardware encoder for digitizing content to MPEG-1 or MPEG-2 video, and it has a VHS Assistant for digitizing analog videotapes.

The \$150 EyeTV Hybrid (★★★★; [macworld.com/2317](http://macworld.com/2317)) is a portable USB stick that can record the same analog and digital signals as the 250 Plus, but relies on the EyeTV software for encoding rather than using hardware.

**EyeTV 2 Software** Bundled with your Elgato hardware you'll find a copy of the company's EyeTV 2 software (★★★★; [macworld.com/1239](http://macworld.com/1239)). It allows you to watch and record live television, organize channels through lists of favorites and playlists, schedule recordings, view program guides from within the applications, edit recorded programs, and export programs for playback on an iPod or Apple TV.

**Roxio Toast Titanium** If you'd like to burn your EyeTV recordings to disc—DVD, SVCD, or Video CD—you'll need a copy of Roxio's \$100 Toast Titanium 8 (★★★★; [macworld.com/2816](http://macworld.com/2816)) or version 7. Installing Toast enables the EyeTV's Export To Toast option, so you can send selected programs to Toast for burning.

**Macintosh** Elgato's EyeTV 2 software requires a Mac with a PowerPC

G4 or G5 or an Intel processor. For 720p or 1080i HD video, you'll need a dual-processor or dual-core PowerPC G5 or a dual-core Intel Mac. That Mac must be running OS X 10.4 or higher and must have at least 256MB of RAM (512MB is recommended).

**Storage** High-quality recordings can consume a lot of hard-drive space—a two-hour movie recorded on an EyeTV 250 at highest quality weighs in at nearly 4GB, for example.

## Get the Picture

Now that you have the necessary equipment, it's time to route the TV signal to your Mac. After you plug the EyeTV into a free USB 2.0 port on your Mac, you need to connect an antenna, a TV cable, or an external video source to the EyeTV.

**Connect It All** For an antenna or unencrypted cable connection, you'll string the coaxial cable between the antenna or cable and the EyeTV's RF connector. For analog cable TV that comes through a cable decoder box, satellite TV receiver, or video source such as a VCR or DVD player, you have some choices. You'll get the best signal from an S-Video connection. If your video source doesn't include an S-Video port, choose the composite-video connector (the yellow plug). Connect an RCA cable to the two audio jacks on the EyeTV's adapter cable (the red and white jacks). Note that while Elgato provides the adapter cable, it does not supply either an antenna or a coaxial, S-Video, composite-video, or RCA cable.

**Set Up the Software** Install the EyeTV 2 software from the included CD. On its first run, it brings up the EyeTV Setup Assistant to help you configure the software and hardware. During setup, the Assistant will ask for



**Compact Recorder** The EyeTV Hybrid is tiny but does the job.



your country, the EyeTV model you're using, and how you've connected the TV to the EyeTV hardware. In the United States, the software offers you the opportunity to create a free account with TitanTV, a Web site Elgato has partnered with to provide program listings to the EyeTV software.

When it comes time to choose how your EyeTV will get its TV signal, select the option either for antenna or cable TV, or for a cable or satellite receiver. With the first option, you'll get an Auto-Tune TV Channels dialog box that will help you scan for your channels and add them to the EyeTV software.

## Other TV Tuner Options

If you're interested in something more than the two EyeTV tuner options already mentioned, there are other ways to view and record TV on your Mac. Elgato recently announced a bundle that includes SiliconDust's HDHomeRun device and two copies of the EyeTV software. The \$199 all-digital hardware includes ClearQAM and ATSC tuners, with dual-tuner support, and lets you enjoy different programs simultaneously on two Macs on your network.

Although Elgato bundles its hardware and software together, the EyeTV

software works with several other ven-

dors' TV digitizers as well. Many models by Miglia, Pinnacle, Plector, Terratec, and Twinhan include or

work with the EyeTV software; if your model doesn't provide the software, you can purchase the latest version of the program for \$50. (This applies to users of older Elgato hardware as well.)

Elgato no longer supplies EyeTV software with devices from Miglia ([www.miglia.com](http://www.miglia.com)), though the software still works with Miglia's hardware. And Miglia has begun including its new software, called The Tube, with its TVMicro Express and TVMini HD+ products.

With the second option, click on the Configure button when you get to the AV Inputs section. Then name your setup, choose the connection type (Composite or S-Video), click on the Change button to enter your zip code, and, from the Service pop-up menu at the bottom of the sheet,

choose the service you use. I subscribe to Dish Net-

work and receive local channels as part of the package, so I selected Dish Network With Local Channels. Click on OK to dismiss the sheet. The EyeTV software will now download the channels you receive.

Once the software has downloaded your channels, make sure to select Channels in the Categories pane of EyeTV 2's main window. Then you should go through the list, deselecting channels you either don't receive (such as premium channels you don't subscribe to) or don't plan to watch (the countless home-shopping channels, for instance). Channels you deselect no longer appear in the Program Guide, making it easier to find just the programs you want.

## Scheduling Recordings

Within EyeTV 2's Program Guide, not only will you find the day's programming listed in a grid arrangement, but you'll see a red target icon next to each program. Click on one of these icons and it changes to a red clock and adds the program to EyeTV 2's Schedules area for recording. Alternatively, click on the title of the program to see a description. If you like what you see, click on the Add Schedule button to add the program to EyeTV 2's Schedules pane (see "According to Schedule").

For over-the-air (antenna) and unencrypted cable television, the EyeTV software will switch to the channel found in the schedule and record the program as directed. It records digital content exactly as encoded by the broadcaster,



**EyeTV Configuration** The EyeTV software needs to know how you've connected the EyeTV hardware, as well as which TV service you use.

while you can set the quality for watching and recording analog programs in the Devices area of EyeTV 2's Preferences. Higher-quality settings produce better-looking results but consume greater amounts of hard-disk space.

## Encryption Issues

If you receive television through an encrypted cable box or satellite receiver, you face an obstacle. The EyeTV software is incapable of changing the channel on your cable box or satellite receiver without some additional help. For this, you'll need a device called an IR (infrared) blaster. This small piece of hardware carries an infrared transmitter that you connect to a free USB port and place in front of your cable box's or satellite receiver's IR port. The blaster's software tells it to send a signal through its IR LED to change the cable box's or receiver's channel. The latest EyeTV 2 software supports two IR blasters—IRTrans' IRTrans USB Module (€99; [www.irtrans.de/en](http://www.irtrans.de/en)) and studioZee's ZephIR (\$50; [www.thezephir.com](http://www.thezephir.com)).

For most people, the ZephIR software will be easier to configure, since the developer has created a wealth of preconfigured profiles for common cable boxes and satellite receivers. Just launch the software, choose Browser: New Component, click on WebzIR in the ZephIR window, select the cable box or receiver brand from the list on the right, and double-click on the specific model you have





**ZephIR Setup** The ZephIR software includes profiles for common cable boxes and satellite receivers.

(see “ZephIR Setup”). Its name will appear in the list of devices in the window’s left pane.

Now move to the EyeTV software, select Channels from the Categories pane, and, from the Service pop-up menu, choose Configure Set Top Box. In the sheet that appears, provide the exact name that appears in the ZephIR software, select the connection your EyeTV hardware uses (Composite or S-Video, for example), enter your zip code, choose your service from the Service pop-up menu, and click on OK. When you change channels in the EyeTV software or create a schedule that requires a channel change, EyeTV 2 will send the channel-change instruction to the ZephIR software, which will then send the correct code to the IR blaster.



**According to Schedule** View information about a program and, if you like, schedule it for recording.

If the ZephIR software doesn’t have your receiver in its database, you’ll be better off with IRTrans’ iRed software, which learns codes from your cable box’s or receiver’s remote control. Simply run its Timer Assistant to walk through the process of recording the remote’s commands. Save your settings with a unique name—Dish or Comcast, for example. Open iRed’s

Preferences window, choose Notifications from the pop-up menu, enable the Listen For EyeTV Channel Change option, and click on Apply. For the best chance of success, configure OS X to launch your selected software at startup.

## The iPod and Apple TV Connection

Now that you’ve configured the EyeTV hardware and software to record programs at your bidding, the final step is to move those programs to your iPod or Apple TV. This couldn’t be easier. Find a program you’ve chosen to record in the Schedules area of the EyeTV software, click on the small downward-pointing arrow in the Export column next to that program, and choose iPod or Apple TV from the pop-up menu. When EyeTV finishes

recording, it encodes the program and then exports it to iTunes (you can even choose a specific playlist). Once it’s in iTunes, you can sync it to your iPod or iPhone, or stream it to your Apple TV.

Note that such automatic

## Speed Up Your Encoding

Exporting programs from EyeTV 2 to an iPod- or Apple TV-friendly H.264 format can be slow going—particularly on pokier computers such as the Mac mini. If you’d rather spend your time watching programs than watching your Mac churn away for most of the day converting a two-hour movie, consider Elgato’s \$100 turbo.264. This USB 2.0 hardware-encoding device can make converting videos a less painful process. For example, it took my 1.67GHz Intel Core Duo Mac mini all night and much of the morning to export Tim Burton’s *Charlie and the Chocolate Factory*, captured from HBO, for my Apple TV. With the Turbo.264 connected, the same job took just over two hours. And it works with unencrypted DVDs as well as QuickTime-based applications such as iMovie and Final Cut Pro, so you can use it even without the EyeTV hardware or software.



exporting to iTunes doesn’t provide the opportunity to remove commercials or trim excess material from the beginning and end. If you want to edit your video before exporting, skip the previous step and click on the Recordings entry in EyeTV’s Categories pane. Select the recording you want to edit, choose View: Open Editor, mark the sections you want to delete, and choose Compact from the pop-up menu at the bottom of the window. —CHRISTOPHER BREEN

Senior Editor **Christopher Breen** is the author of *The iPod and iTunes Pocket Guide*, second edition, and *The iPhone Pocket Guide* (Peachpit Press, 2007). **Michael Gowan** is a freelance technology writer.





# ewoo™

## Browse your iPod™ and iTunes™



ewoo navigator for iTunes™



With ewoo control your multimedia environment and control remotely all your content for top quality broadcasting. ewoo's 2.4GHz technology and intuitive touch screen navigation combines free movement within a 100 foot radius to offer the best user experience. Both iPod™ and iTunes™ compliant (by adding an optional USB adapter), ewoo presents the ultimate multimedia management solution.

Discover ewoo™ at [www.play-ewoo.com](http://www.play-ewoo.com)

Apple, the Apple logo, iPod™, iTunes™ are trademarks of Apple. Other company and product names may be trademarks of their respective owners. iPod sold separately.



# Internet-Calling FAQ

Curious about VoIP? Here's what you need to know **BY TED WALLINGFORD**

**M**aking calls over the Internet can shrink your home phone and cell phone bills. But voice over IP (VoIP) is more than just thrifty—it mixes traditional calling with new features that simply aren't possible with a plain old telephone. Ready to jump on the bandwagon? Here are answers to some of the most common questions people have when they're thinking about making the switch.

**Q:** What basic options do I get to choose from if I decide to use voice over IP?

**A:** There are two general ways to use VoIP—via either desktop voice-communications software or phone-line-replacement services. You can often combine the two. Both approaches require high-speed Internet access.

Some of the most popular software packages include Gizmo Project (🔗; [macworld.com/2898](http://macworld.com/2898)), Skype (🔗; [macworld.com/2898](http://macworld.com/2898)), and SightSpeed (🔗; [macworld.com/2898](http://macworld.com/2898)). These programs, which you download and install on your Mac, let you place calls to other users of the software for free, or to traditional phone numbers at a usual cost of 1 to 2 cents per minute within North America. (International calls cost more, but are still typically less than phone company rates.)

For a few bucks more each month, Gizmo and Skype will even give you a local phone number so you can receive an unlimited number of calls from people using regular phones, too. The calls travel over your broadband connection. You listen and talk directly through your USB headset



(which you might need to pay for separately) to your broadband router. Then it's a simple matter of hooking up your telephone to a jack on the adapter.

**Q:** Will I notice a big difference in sound quality when I use VoIP versus a regular phone?

**A:** VoIP calls can sound better than calls made over a traditional phone. But Internet traffic and other variables may lower call quality, sometimes resulting in garbled sound similar to what you get with bad cell-phone reception. Some VoIP users experience echo—that is, they hear themselves speaking on a slight delay. The bottom line is this: the faster your Internet connection, the less likely you are to have problems with sound quality.

**Q:** Is it necessary for me to get a headset in order to make calls on my Mac?

**A:** If you use any voice-communications software that runs on your computer, you need a mike and speakers—built in on most Macs. But I recommend that you opt for a USB headset that includes both a microphone and an earpiece. You will almost certainly want one if you're making a lot of calls each day, if for no other reason than headsets reduce the likelihood of the echo, noise, and feedback that sometimes occur when you're using voice-communications software with an external mike and speakers.

For those people who prefer the feel of a more traditional handset with a keypad, it's worth checking into Ipevo's \$35 Free-1 and \$45 Free-2 USB handsets

or your computer's speakers and microphone—no telephone required.

Phone-line-replacement services, on the other hand, let you use a regular phone to place calls. Some of the most popular services include BroadVoice (\$20 a month for unlimited calling to the United States and 20 other countries; [www.broadvoice.com](http://www.broadvoice.com)), Speakeasy (\$84 a month for broadband service and unlimited calling to the contiguous United States and 22 other countries; [www.speakeasy.net](http://www.speakeasy.net)), VoicePulse (\$25 a month for unlimited U.S. calling; [www.voicepulse.com](http://www.voicepulse.com)), and Vonage (\$25 a month for unlimited calling to the United States, Canada, Puerto Rico, and five European countries; [www.vonage.com](http://www.vonage.com)). You don't need to have a computer turned on and nearby to use a phone-line-replacement service. Instead, you hook a special adapter



([www.ipevo.com](http://www.ipevo.com)). These stylish devices come in black and white (see "Calling Options"). At present, though, they work only with Skype. If you're using a different program, look at Logitech's \$50 Mobile Express Headset ([macworld.com/2899](http://macworld.com/2899)), a Bluetooth earpiece and microphone combo that works with Mac OS X 10.4 (Tiger) and with most Bluetooth-equipped cell phones.

If you'd rather use a wireless handset, you might opt for Miglia's \$87 wireless Dialog+ ([www.miglia.com](http://www.miglia.com)). (You'll typically find it for \$60 to \$80 online under the name Dialog Phone Plus.) It includes a keypad and lets you wander up to 80 feet from your Mac. The Dialog Phone Plus is designed to work with Skype and Apple's iChat AV, but because it appears as a standard audio input on your Mac, you *should* be able to use it with any of the software we've talked about.

**Q: What special features can I expect from desktop voice-communications software?**

**A:** It's the special features that make desktop calling software so cool compared with phone-line-replacement services. Skype and SightSpeed both offer videoconferencing

with other members. SightSpeed's video quality is superb, giving even Apple's own iChat AV a run for its money. Skype gives you Apple Address Book integration, so dialing a contact takes a fraction of the time it ordinarily

**Calling Options** Like the idea of making calls through your Mac, but prefer the feel of a regular telephone to a headset? The Ipevo Free.2 USB handset for Skype hooks into your Mac but looks just like a phone. It comes complete with a keypad, so you don't have to use your keyboard to dial.



## The Anywhere Phone Number

If you're like most busy people, you want to be as reachable as possible at all times, whether it's for your kid's pickup call from soccer practice or an ad-hoc sales opportunity. It's not practical to lug your Mac around wherever you go and hope for a steady Wi-Fi connection. But new services can tie your cell phone, VoIP service, and traditional phone lines into a single, easy-to-manage package.



Perhaps your best option is Google's recently acquired GrandCentral ([www.grandcentral.com](http://www.grandcentral.com)). Sign up for its messaging service (in beta at press time), and you'll get a "GrandCentral number," a standard phone number that you can program to ring on your cell phone, your home phone, your Vonage phone, your Gizmo Project client, or all of the above—*simultaneously*. Whether you're at your Mac or not, at home or on the road, you'll remain reachable, and you'll never have to hand out your cell phone number. (It's worth noting that some phone-line-replacement services offer call following and multiline ringing as part of their standard packages. Check out all the features you want before you sign up for an add-on service.)

While your caller is waiting for you to answer on one of your devices, GrandCentral plays a standard ring-back tone. But if you prefer, you can upload an MP3 file for callers to listen to while they wait. (Keep in mind that this won't work with digitally protected AAC music files purchased from the iTunes Store.)

If you would prefer not to answer certain calls—such as those without an incoming caller ID—GrandCentral can optionally record the caller's name before asking if you'd like to take the call when you answer. If you choose not to take it, that call goes off to voice mail while you resume mowing your lawn. Later, you can log on to the GrandCentral Web site to listen to your voice mail, or, if you've provided your e-mail address, the message will be waiting in your e-mail inbox. Alternatively, you can listen to an incoming voice mail *while* it's being recorded. Now that's just super creepy cool.

would. Skype will even let you transfer calls to other numbers with a single mouse click.

Gizmo Project offers a huge palette of voice-mail and hold-music options—just grab a favorite song from iTunes and convert it to a WAV file, and Gizmo will play it for your callers while they're on hold. Gizmo can also forward your voice-mail messages to your e-mail address or send an SMS alert to your cell phone when you receive a new voice mail.

All that's not to say that phone-replacement services don't offer anything special (particularly compared with traditional phones' limited menu of call-waiting and party lines). Check the features list of a service you're interested in to see what it includes.

**Q: If I use a phone-line-replacement service, can I make calls through my Mac, too—for instance, when I'm traveling?**

**A:** One breed of desktop voice-communications software, called a *softphone*, allows you to use your phone-line-replacement service from the comfort of your Mac desktop. When you run a softphone on your Mac, your phone number follows your computer wherever it goes.

If you use your Mac for contact management, your phone is never far from your address book, either. So whether you're at home in Wichita or in a hotel room in Yonkers, you'll be reachable as long as you have broadband access and a microphone. Best of all, you can avoid the ridiculous long-distance and cell phone-roaming charges associated with international travel by calling home from your Mac instead of your cell.

Many VoIP phone services—Vonage, BroadVoice, VoicePulse, and others—support softphones. Vonage requires that you use the company's own application (download it from [macworld.com/2900](http://macworld.com/2900)). BroadVoice and VoicePulse allow you to



use any softphone. The best one for the Mac, hands down, is CounterPath's \$34 eyeBeam Basic ([macworld.com/2901](http://macworld.com/2901)).

EyeBeam looks like an on-screen telephone. The process of configuring it to use your phone-line-replacement service can be a bit daunting, but VoicePulse and BroadVoice both offer support for setting up eyeBeam, so you won't be flying solo. If you want to take it for a test drive, CounterPath offers a free, stripped-down version called X-Lite (see "Portable Phone Replacement"). Download it from [macworld.com/2902](http://macworld.com/2902).

Even if your phone-line-replacement service doesn't support a softphone, you can usually tote your phone adapter along with you. That means you can take your phone number anywhere you have access to the Internet and a place to connect a network cable—making your service quite mobile indeed.

**Q:** Is it true that if I use VoIP I won't be able to call 911 in case of an emergency?

**A:** That depends on how your chosen VoIP provider supports

## TRY THIS

### Take a Video Snapshot

Whether it's the second when your child carved the perfect nose on her first jack-o'-lantern or the moment when your spouse took a particularly wild tumble off the mechanical bull, sometimes you want to capture your favorite instants from video clips. Upgrade to QuickTime 7 Pro (\$30; [macworld.com/2870](http://macworld.com/2870)), and it's a snap. Simply pull up the frame you want to capture and choose File: Export. In the Save Exported File As dialog box that appears, choose Movie To BMP from the Export pop-up menu and click on Save. Alternatively, you can choose Movie To Picture from the same pop-up menu, click on Options, and then choose a different graphics format from the Compression Type pop-up menu in the resulting Compression Settings dialog box. Click on Save.

No QuickTime Pro? No problem. In the regular QuickTime 7 Player, grab the still image by pressing ⌘-C to copy the frame, and then launch Preview and choose File: New From Clipboard. Save the file and, in the resulting sheet, choose a file format for it from the Format pop-up menu. Alternatively, you can always resort to a screen shot. Just press ⌘-shift-4 and, using the selection cursor that appears, draw a marquee around the frame. When you let go of the mouse button, your Mac will capture the selected area as a PNG file and save it to the desktop.—CHRISTOPHER BREEN



emergency calling. If you're using desktop voice-calling software, you won't be able to dial 911. If you're using

a phone-line-replacement service, check the company's Web site to see how it deals with the issue. Most providers are required by local and federal law to support emergency calling. (They give your home address as your location.) If you're using a softphone with a phone service, you'll need to ask whether that service offers 911 calling for softphone users. Also, if you carry your adapter with you on a trip, you may render your phone-line-replacement service's 911 dialing useless. Carry your adapter away with you to Honolulu and call 911, and the police will show up at your home address back in Pittsburgh.

For more information about emergency services calling and VoIP, see

[www.voip911.gov](http://www.voip911.gov), which includes a fact sheet and tips from the FCC.

**Q:** Can I use VoIP with my corporate telephone system?

**A:** You can use softphones like eyeBeam with many corporate telephone systems, as long as they support VoIP calling using the SIP (Session Initiation Protocol) standard, a technology that's increasingly common in enterprise phone equipment these days.

You might need assistance from your company's networking person to get hooked up, but the payoff is worth it. Imagine your office extension ringing on your laptop at the same time it rings on your desk phone. You could conceivably be in your jammies at home or sipping a latte at Starbucks while handling calls placed to your office. Such flexibility is very doable with today's enterprise VoIP gear, a broadband link, and a softphone sitting in your OS X Dock. ☒

**Ted Wallingford** is the cofounder of Best Technology Strategy ([www.btstrategy.com](http://www.btstrategy.com)) and the author of *Switching to VoIP* (O'Reilly Media, 2005). Read his blog at [www.macvoip.com/stn](http://www.macvoip.com/stn).



**Portable Phone Replacement** As long as you have your Mac, a broadband connection, and a softphone like CounterPath's free X-Lite 3.0, it's possible for your phone-line-replacement service to follow wherever you go.





He was a hardworking farm boy.

She was an Italian supermodel.

He knew he would have just one chance to impress her.

Rosetta Stone®. The fastest and easiest way to learn ITALIAN.

Arabic	Dutch	Farsi	Greek	Indonesian	Korean	Polish	Spanish (Latin America)	Swedish	Turkish
Chinese	English (American)	French	Hebrew	Italian	Latin	Portuguese	Spanish (Spain)	Tagalog	Vietnamese
Danish	English (British)	German	Hindi	Japanese	Pashto	Russian	Swahili	Thai	Welsh

### Rosetta Stone® teaches you a language the way you learned your first language.

Children don't learn to speak their first language through grammar exercises and memorization drills, they learn by making connections between the objects and events they see and the words that others use to describe them. Rosetta Stone works the same way. A combination of images, words and voices of native speakers fully immerse you in a new language. You'll learn by making connections between what you see, hear, write and say. We call it Dynamic Immersion™, but the process is as natural as language itself. That's why we offer a six-month money-back guarantee when you buy directly from us.



**SPEAK:** Speech-recognition tools compare your pronunciation with a native speaker.



**LISTEN:** Native speakers and everyday language develop your listening comprehension skills naturally.



**READ:** Build your reading skills by linking written language to real-life objects, actions and ideas.



**WRITE:** Practice writing the new language and receive immediate feedback.

**Act now to receive a 10% discount.**

Personal Edition. Software for organizations also available. Offer expires Jan. 31.

**Level 1**  
Regularly \$209.00  
**NOW \$188.10**

**Level 2**  
Regularly \$239.00  
**NOW \$215.10**

**Level 1&2 Best Value!**  
Regularly \$339.00  
**NOW \$305.10**



The fastest way to learn a language. Guaranteed.™

(800) 399-6218

Use promotional code ozs107 when ordering

[RosettaStone.com/ozs107](http://RosettaStone.com/ozs107)

**RosettaStone®**



# The iPod Study Buddy

Turn your player into the ultimate learning guide **BY DERIK DELONG**

**W**alk down the street in most cities—or through any college campus—and you're likely to see more iPods than you can count. But those iPods can do more than just pump up gym-goers as they work out, or enable students to rock out as they walk to class or watch videos during study breaks. The devices can also serve as powerful learning tools. Whether you're trying to pass Physics 101—or just learn passable French for your next business trip to Paris—the iPod can accommodate the eternal student in all of us.

## Podcast Learning

Podcasts are a great educational tool, whether you're a student or you're out in the working world. Students can download course lectures, an easier way to recover from missed classes (or inadvertent in-class dozing). And the rest of us can learn on our own time, continuing our education without having to invest time or money in classes.

**iTunes U** Apple recently dedicated an area within the iTunes Store that it calls iTunes U—a program that enables higher-education institutions to share content with students via the iTunes interface. Accessible through the iTunes Store box on the Store's home page, iTunes U features audio and visual content from a number of schools, including MIT; Penn State; Stanford; and the University of Cali-



**Online School** Through iTunes U, colleges and universities offer up audio and video study materials through the iTunes Store.

fornia, Berkeley. You'll find lectures, special guest presentations, and even promotional materials aimed at attracting students. Some material is accessible only to enrolled students, but much of the content is open to the public. For instance, MIT makes some of its classes publicly available as part of its Open Courseware project (see "Five Great Courses" for our picks of cool classes on iTunes U).

**Adult Learning** Besides college coursework, the iTunes Store also features a multitude of training-based podcasts. Head to the Podcasts section of the store, and click on the Education link in the Categories box. Then, in the More Education box, select Training. Here you'll find tutorials on everything from graphic design to beer. Want to

learn about money? *Wallstrip* is a video podcast about investing and finances that started independently and is now backed by CBS. Or if you're looking to improve your writing skills, check out *Grammar Girl's Quick and Dirty Tips for Better Writing*.

**Language Skills** ¿Habla español? If you wish the answer were "sí," check out iTunes' language offerings. Language podcasts are a great way to supplement a course, or to bone up on some foreign phrases if you're traveling abroad. To locate language lessons, click on Podcasts in the iTunes Store box and then click on the Education category. Select Language Courses in the

## playlist Want more tips on digital music?

For iPod- and iTunes-related expert advice and breaking news, as well as reviews of all the latest gadgets, check out [Playlistmag.com](http://Playlistmag.com).

**FIND IT ONLINE** Find more learning options at [macworld.com/](http://macworld.com/)

**2968**



More Education box. You'll find many different approaches to learning Spanish, French, Italian, Japanese, Chinese, and other tongues (including one podcast dedicated to Argentine slang).

### Portable Notes

Podcasts are useful tools, but what if what you really need is easy access to class notes, minutes from a meeting, or a speech you're trying to memorize for your daughter's wedding? You can use the iPod's Notes feature to store lectures and other material that you can peruse at any time.

To start, you'll need to put your iPod into disk mode. Connect your iPod to your Mac, go to iTunes, and select the iPod from the Devices list on the left. Under the Summary tab, click on the Enable Disk Use option. Once you've turned on disk mode, your iPod should appear as a volume on your desktop. Double-click on the iPod icon and locate the Notes folder.

You'll then need to convert anything you want to show up in the iPod's Notes to plain text files, either by using a program such as Apple's free TextEdit or by saving your Microsoft Word documents as Text Only (File: Save As). Then, just drag each file you want to the Notes folder on the iPod. If you plan to store a bunch of notes, it's best to create folders—say, one for each class. You can help keep those lists further pruned by creating subfolders and organizing notes by week or topic, for instance.

Once you disconnect your iPod, you can find your files under Notes. If you don't see this option in your main iPod menu, look under Extras. If you want to promote Notes to your iPod's main menu, visit Settings: Main Menu, scroll

down to Notes, and click on the iPod's select button to turn this option on.

### Hire a Tutor

Though you can certainly load your own notes files onto your iPod, third-party programs can also help boost your brain power. (In addition to the following tools, you can add flash cards and quizzes. Go to [macworld.com/2968](http://macworld.com/2968) to find out how.)

**Prefab Notes** There's no shortage of study guides available for the iPod. For students preparing for the SAT, the iPod Games section of the iTunes Store now offers Kaplan SAT Prep programs for math, reading, and writing at \$5 each. And eNotes.com offers vocabulary flash cards for the iPod ([college.enotes.com](http://college.enotes.com)), which are included with the \$30 SAT Prep Pass or \$50 College Prep Pass.

iPreppress ([www.ipreppress.com](http://www.ipreppress.com)) offers a full line of iPod materials, including dictionaries, encyclopedias, biographies, test-preparation help, charts, and study guides for popular pieces of literature and common science and math classes—for less than \$10 each.

**Notes Helper** If you're looking to build more-sophisticated notes projects, Talking Panda's \$30 iWriter 1.0.4 ([www.talkingpanda.com](http://www.talkingpanda.com)) can help you organize a lot of data into a cohesive set of notes. Designed primarily for teachers, the program comes with templates for various types of projects, including Lecture Notes, Quiz, and Multimedia Teaching Tool. However, the program is useful for students as well. For instance, you can create one file that includes all your lecture notes, suggested reading lists, and problem sets, and even the audio of a lecture you've recorded on your iPod.

When you're done building your file, you connect your iPod and click on the Export To iPod button. Your file should appear in your player's Notes folder, complete with all your notes and links to any audio. And if you want to send your

### iPod Note Maker

iWriter includes several templates to help you organize notes and information for your iPod.

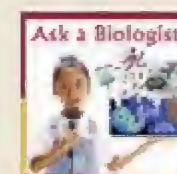
## Five Great Courses

Wish you had paid more attention when you were in school? Visit the iTunes Store and check out these podcasts of some popular college classes.



### Astro C10: Introduction to General Astronomy

If you're interested in the universe, start with this University of California, Berkeley, course ([macworld.com/2938](http://macworld.com/2938)).



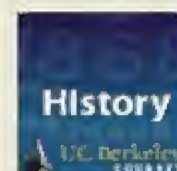
### Ask a Biologist

From Arizona State University, this podcast features Dr. Biology interviewing different scientists to learn about the living world ([macworld.com/2939](http://macworld.com/2939)).



### Electricity & Magnetism

This MIT video series introduces you to the world of electromagnetism, and how it drives both everyday devices and not-so-everyday events ([macworld.com/2940](http://macworld.com/2940)).



### History 7B: From the Civil War to the Present

Gain a new perspective on this period in U.S. history, courtesy of the University of California, Berkeley ([macworld.com/2941](http://macworld.com/2941)).

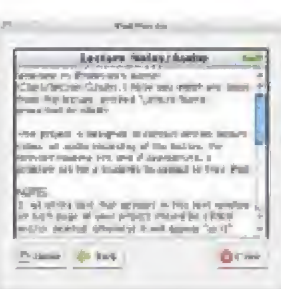


### Elementary Greek

This Concordia Seminary course helps you learn Greek, complete with proper pronunciation ([macworld.com/2942](http://macworld.com/2942)).

notes file to others, click on the Share Project button, and you can save and e-mail the file, or upload it directly to your .Mac account. ☒

**Derik DeLong** is a recent college graduate and a co-editor and writer for [MacUser.com](http://MacUser.com).





# Printing on Unusual Surfaces

From fine-art paper to fabric, there's a world of possibilities **BY RICK LEPAGE**

**M**any people assume that when printing photos at home, you have to use paper from the same company that makes your printer. But while there are certain advantages to sticking with the same brand—a printer's driver is fine-tuned for the manufacturer's papers—it's not your only option. If you're willing to experiment, you can find a world of alternative media types, including less-expensive glossy papers, exotic handmade papers, and even fabrics. The trick to using unusual papers is understanding which ones your printer can handle and how to adjust your print settings to get good results on their unique surfaces.

## Picking Your Paper

Here are a few of the papers available for ink-jet printers:

**Resin Coated (RC)** These are comparable to the glossy and satin-finish papers you get from a photo lab. They have a plastic base, and are bright white with either a high-gloss coating or a pebbly luster finish. Color photos practically pop off the page, which is why RC papers are so popular. And they are often less expensive than the photo papers printer vendors make. But the low cost of these papers doesn't mean they're of low quality; I've used a number of RC papers from companies like Red River Paper ([www.redrivercatalog.com](http://www.redrivercatalog.com)) and Moab ([www.moabpaper.com](http://www.moabpaper.com)) with excellent results.

**Matte Finish** Another popular option, these papers have a coating that absorbs the ink but produces no shine. They're less expensive than glossy papers, so they're a good choice for proofs and for budget-conscious printing. My favorite matte paper is Epson's Ultra Premium Presentation Matte ([www.epson.com](http://www.epson.com)), which produces wonderful prints

on just about every photo printer I've tested. Red River also offers nice matte-finish papers, including greeting cards.

## Three Prints

Printing a photo on Color Textiles' Cotton Voile fabric **A**, Hahnemühle's Photo Rag Pearl paper **B**, and Crane's Maestro Matte canvas **C** produces very different textures.

**Fiber Based** These papers have characteristics similar to those of traditional photographic papers. Fiber papers have no plastic backing and use a low-gloss coating, sometimes labeled as *baryta*. The result is rich, deep tones, especially for black-and-white prints. Crane ([www.crane.com/museo](http://www.crane.com/museo)) offers a fiber-based paper called Museo Silver Rag. Harman Technology ([www.harman-inkjet.com](http://www.harman-inkjet.com)) also offers two excellent fiber-based papers, Photo Matt FB Mp and Photo Matt FB Mp Warmtone. The Warmtone paper, made specifically for black-and-white prints, is one of the most gorgeous papers I've used.

**Fine Art** When I first started printing on alternative media, I would buy sheets of Arches watercolor paper from the art-supply store. Although I could get stunning results, the process required a lot of trial and error. Today, companies like Crane, Hahnemühle ([www.hahnemuehle.com](http://www.hahnemuehle.com)), Moab, and Red River make textured and smooth fine-art papers designed to work with ink jets. Fine-art papers tend to be more expensive than glossy and matte-finish papers. Most vendors offer sample packs that contain a few letter-size sheets of their line.

**Fabric** My wife is a quilter, and we've been printing on fabric for years. In the old days, we used a warm iron to affix muslin to freezer paper, which provided a stiff backing. Nowadays, many companies make fabric sheets, which use a similar combination of fabric and backing sheet. Most good quilt and fabric stores carry a line of ink-jet fabric. Online company Color Textiles ([www.colortextiles.com](http://www.colortextiles.com)) offers sheets and rolls of more than 14 fabrics, including silk, rayon, and poplin. Although reproducing fine details is challenging—even pigment inks will bleed a bit—you



PHOTOGRAPH BY PETER RELANGER



can get fabulous results. Just pay attention to the washing instructions, as some sheets require special treatment.

**Handmade** Many art stores stock a selection of fine Japanese and Italian handmade papers, which can be particularly fun to print on. As with fabrics, you won't get fine detail, but you will get unique images. Hiromi Paper International ([www.hiromipaper.com](http://www.hiromipaper.com)) is a great place to start. The company offers some beautiful handmade papers, many with coatings for ink-jet printers.

## Understanding Your Printer

Ink-jet printers use one of two types of ink: pigments or dyes. Pigment inks consist of tiny encapsulated particles that sit on top of the paper. Dye inks, on the other hand, are absorbed into the paper and produce very bright images with a wider color range than pigment inks. The difference, however, is much less than it used to be.

If your printer uses dye inks (check its manual if you're not sure), you should get good results from most glossy and semigloss papers, as well as most matte-finish papers. Although some paper companies will steer you away from fine-art paper, I've gotten great results with watercolor paper and dye inks.

In the past, pigment inks didn't print well on glossy paper. But both the printer manufacturers and the paper companies have worked hard to resolve this problem. Still, pigment inks tend to produce the best prints on papers with dull finishes, such as matte, fiber, and fine-art papers. They also work well on fabrics and handmade papers.

You should also check the manual to see whether your printer can handle thick paper. Many inexpensive photo printers can't, and trying to jam thick fine-art paper through your printer can result in smeared ink or, worse, a damaged print head. Some fine-art paper companies offer thinner ver-

sions of their most popular papers. Hahnemühle, for example, makes a thin version of Photo Rag—one of my all-time favorites—that works nicely with my low-end Canon and Epson photo printers.

## Choosing Your Print Settings

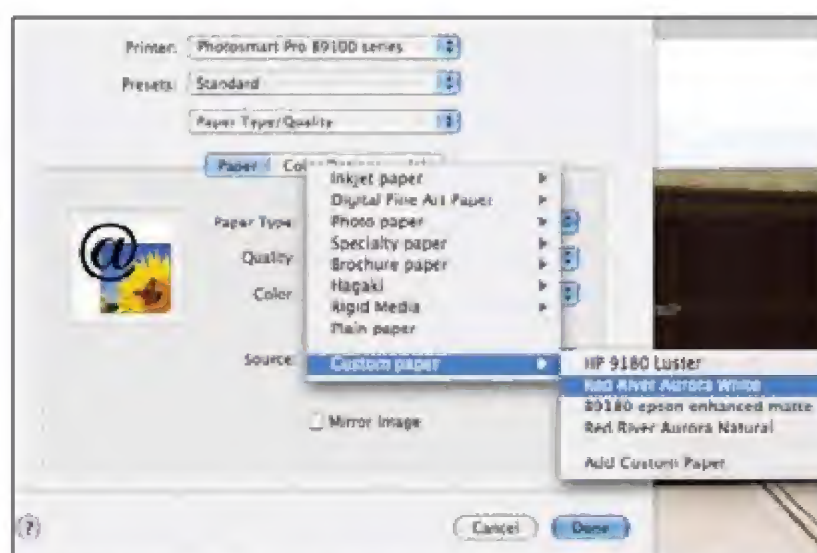
Since most printer companies list only their own papers in the Print dialog box, determining which print options will work best with other papers can be challenging.

If you're using Adobe Photoshop, Photoshop Elements, Photoshop Lightroom, or Apple's Aperture, your best option is to use an ICC color profile for the paper. A profile is like a key that translates the colors in your image into colors that the printer is capable of outputting on a specific paper. While it's possible to make your own color profiles using a spectrophotometer and software that reads color patches from a test sheet, most paper companies offer ICC profiles for popular photo printers. Simply download the appropriate profile and place it in the `/Library/ColorSync/Profiles` folder. When you're ready to print, select the appropriate profile from the color-management options in your program. In Adobe applications, you will also need to turn off the printer's color-management setting in the Print dialog box. Then choose the paper type that's closest to the paper you're using.

If you have Hewlett-Packard's Photosmart Pro B9180, the process is much easier—the printer lets you install settings for alternative papers and their ICC profiles into the print driver, which is the way all printers should work.

## Working without Profiles

If you don't have a profile for your paper, or if you're using a program (such as Apple's iPhoto) that doesn't let



**Printing Done Right** Unlike other printers, HP's Photosmart Pro B9180 lets you add custom paper types and their associated ICC profiles to the printer driver for easy selection. On other printers, you'll have to find the installed paper type that best matches your media.

you choose a specific ICC profile, getting a good print may be a process of trial and error.

First, examine the paper types listed in the printer's driver for the closest match—both in finish and in thickness—to your new paper. For example, if you're trying a new semigloss paper on an Epson printer, your best place to start is by selecting Premium Luster from the Media Type pop-up menu in the Print dialog box. If you're using a thick paper, and you aren't sure if one of the installed paper types is appropriate, check its settings for a Thickness or Platen Gap option, which controls the distance between the print head and the paper.

For some papers, you might also want to check the driver for a way to alter how much ink the printer lays on the page. With handmade papers and fabric, I often slightly reduce the Ink Volume (on HP printers) or Color Density (on Epson printers) before running a test print, and then I increase the setting as needed.

It's rare that you'll get perfect prints the first time with this method. Continue playing around with the printer driver's settings until you have something that works well for your chosen paper type. Then save that setup as a preset in the Print dialog box so you can use it over and over again. ☒

**Rick LePage** is *Macworld's* editor at large and an editor at [CompleteDigitalPhotography.com](http://CompleteDigitalPhotography.com).

## Paper Sources

Go to [macworld.com/2973](http://macworld.com/2973) for a list of my favorite paper companies and what they have to offer, as well as links to additional printing resources.





# Laptop Gems

Low-cost software that can really help when you're on the road **BY DAN FRAKES**

It's obvious that using a MacBook or a MacBook Pro isn't like using an iMac or a Mac Pro. But the differences go beyond simple issues of portability. You interact with a laptop in different ways (relying more on the keyboard and using a trackpad, for example), and you may use a laptop for different tasks. So the software needs of laptop users are different from those of their desktop counterparts. Here are a few of my favorite pieces of low-cost software specifically designed for—or just especially handy for—use on a laptop.

## BACKUP

### ChronoSync 3.3-5

If you've got a laptop and a desktop Mac, making sure you have the latest versions of your files on each can be a challenge. Econ Technologies' ChronoSync (★★★★; \$30; [econtechnologies.com](http://econtechnologies.com)) lets you synchronize folders, or even your entire Home directory, before you leave home and whenever you return.

## ITUNES

### TiVoDecode Manager 2.1

David Benesch's TiVoDecode Manager (★★★★; free; [tdm.sourceforge.net](http://tdm.sourceforge.net)) gets your TiVo-recorded shows onto your laptop or iPod for on-the-go viewing. Choose a networked TiVo to view all shows stored on that TiVo; TiVoDecode Manager will then copy the shows you choose to your Mac and convert them using your preferred settings—it can

even automatically add the resulting videos to iTunes.

## MISCELLANEOUS

### Keyboard Cleaner 1.0

Want to wipe off your laptop's keyboard without shutting down? Jan Lehnardt's Keyboard Cleaner (★★★; payment requested; [macworld.com/2622](http://macworld.com/2622)) temporarily disables the keys so you can wipe them off without causing unwanted input.

## NETWORKING

### NetworkLocation 1.1

If you frequently change locations, you probably do more than just tweak your network settings. Centrix.ca's NetworkLocation (★★★★; \$15; [macworld.com/3020](http://macworld.com/3020)) can automatically perform

a bunch of different actions when you switch locations: launch or quit programs, run scripts, connect to servers, change the default printer, and more. You can choose your location via the menu bar or the attractive network-location display; the latter appears either when you press a keyboard shortcut or automatically when your computer wakes from sleep or connects to an AirPort network.

## NETWORKING

### WiFind 1.2

TastyApps' WiFind (★★★★; \$8; [macworld.com/2955](http://macworld.com/2955)) makes Apple's AirPort menu more useful; it'll

tell you at a glance which nearby wireless networks require a password, and how good their signals are; you can get more information by holding the cursor over a network's name.

## SECURITY

### Knox 1.1.1

File encryption is especially useful on a laptop, given the risk of laptops falling into the wrong hands. If you think OS X's FileVault is overkill, try Marko Karppinen & Co.'s Knox (★★★★; \$30; [macworld.com/2534](http://macworld.com/2534)). It lets you create encrypted disk images—as large or small as you need—for securely storing data. You can mount and eject these disk images from a convenient menu, and Knox can automatically back them up.



**Mira** Make your Apple Remote good for more than watching movies on a plane—Mira is an easy-to-use Apple Remote enhancer.



#### SYSTEM UTILITY

### AppleJack 1.4.3

With The Apotek's AppleJack (★★★★; payment requested; [macworld.com/2277](http://macworld.com/2277)) installed, you can start your laptop in single-user mode (hold down ⌘-S at startup) and do all kinds of useful troubleshooting—repairing your hard drive, testing RAM, repairing permissions, deleting cache files, and validating preferences files—even when you can't properly boot into OS X.

#### SYSTEM UTILITY

### Mira 1.2.8r2

If your laptop came with an Apple Remote, Twisted Melon's Mira (★★★★; \$16; [macworld.com/3019](http://macworld.com/3019)) makes that accessory more useful by allowing it to work with any application. Although Mira isn't the most powerful Apple Remote enhancer out there, it's the easiest to use, thanks to an intuitive preference pane that lets you assign actions to each button in each program; there's an impressive array of options, from keyboard shortcuts to system actions. Over 60 customizable software profiles are built in, and you can create your own for other programs. A handy on-screen menu lets you switch between applications.



**NetworkLocation** For those of you who move around a lot, NetworkLocation can launch programs, run scripts, and more whenever you change locations.

## Roadside Assistants



When you're on the road, wireless networking can be your lifeline. These three tools make finding and using public and private Wi-Fi networks easier and more productive.

**Fon** Hotspot networks that enable free or inexpensive roaming aren't new, but Fon is an interesting variation on the concept. As of this writing, the company says that there are 130,000 participating customers (called Foneros) worldwide, each of them running a LaFonera router. That \$40 hardware creates two virtual Wi-Fi networks: a protected one for private use, and a public one that other registered Foneros can use. If you share your network for free, you're a Linus (after the original developer of Linux, Linus Torvalds) and can use the connections of other Linuses for free. If you choose to be a Bill (after Bill Gates), Fon collects about \$2 from visitors for a day's access to your network, and splits the take with you. But check with your service provider before you join: most U.S. ISPs prohibit sharing a connection ([www.fon.com](http://www.fon.com)).

**Loki** Skyhook Wireless has managed the neat trick of mapping Wi-Fi networks geographically. (It does so by constantly driving through cities in vehicles with high-power GPS receivers and taking snapshots of the public information broadcast by Wi-Fi networks; the data is available only for major cities in the United States, Canada, and Australia.) Loki is a Firefox plug-in that uses this data to make your browser location-aware. When you surf to a Loki-aware Web site, it tailors its information to your location; you could, for example, quickly find the prices at nearby gas stations without having to input your location manually (free; [www.loki.com](http://www.loki.com)).

**Whisher** Sharing your wireless network with friends should be easy. But if you're smart, you've protected that network with a long, hard-to-guess pass phrase—which also happens to be difficult to type in and easy to forget. Whisher aims to save you some frustration by letting you securely share your network password with a group of buddies. (It can also provide guest access for office networks that use WEP or WPA Personal.) Whisher Technologies' Whisher includes chat and file-transfer tools like those found in iChat, but it's designed to work well over a local network. Whisher's software constantly updates an encrypted password cache for your networks, your buddies' networks, and shared public networks (free; [www.whisher.com](http://www.whisher.com)). —GLENN FLEISHMAN

#### SYSTEM UTILITY

### Mouseposé 2

If you run lots of presentations from your laptop, you can enhance those presentations with Boinx Software's Mouseposé (★★★★; \$15; [macworld.com/3021](http://macworld.com/3021)). It lets you use your trackpad to move a spotlight around the screen.

#### SYSTEM UTILITY

### SlimBatteryMonitor 1.4

In addition to taking up less room in your menu bar than OS X's battery indicator, Colin Henein's SlimBatteryMonitor (★★★★; payment requested; [macworld.com/2953](http://macworld.com/2953)) can show you more information, in more formats, depending on whether your laptop is running off the battery, plugged in and charging, or fully charged.

#### SYSTEM UTILITY

### Smart Scroll X 2.6

Marc Moini's Smart Scroll X (★★★★; \$19;

[macworld.com/3018](http://macworld.com/3018)) lets you scroll from your keyboard—it effectively adds scroll-up and scroll-down keys. It also enhances the trackpad with a Super Wheel feature that lets you “fling” pages up or down; those pages seem to move on screen with their own momentum. You can also grab an on-screen page and scroll around by moving your finger on the trackpad.

#### SYSTEM UTILITY

### Unplugged 1.8

If you've ever found yourself with a dead laptop battery because (unbeknownst to you) your laptop's power cable became disconnected, you will love Michele Balistreri's Unplugged (★★★★; payment requested; [macworld.com/2954](http://macworld.com/2954)). It pops up a you-can't-miss-it message whenever your laptop switches between battery and power-adaptor power. ☒

**Dan Frakes** is a senior editor at Macworld.



# Linux on the Mac

Parallels Desktop and VMware Fusion do more than Windows **BY BRIAN JEPSON**

**B**y now, you know that you can run Windows on an Intel Mac, using either Apple's own Boot Camp or a virtualization program like Parallels Desktop ([parallels.com](http://www.parallels.com); [macworld.com/2930](http://macworld.com/2930)) or VMware Fusion ([www.vmware.com](http://www.vmware.com)). But those virtualization programs don't just run Windows: they can also run Linux (or any other Intel-compatible operating system) on your Mac. Here's how.

## Get the Software

Both VMware and Parallels are available as free, time-limited downloads. (If you decide you like Parallels, it'll cost you \$80; VMware, still in beta, will cost the same when it's released.) The most significant difference right now is that VMware offers clipboard integration, so it's easier to cut and paste items between Mac OS X and Linux; it's only a matter of time before the Mac version of Parallels supports full clipboard integration, too.

Once you've installed your virtualization software, you need to get Linux. While there are many Linux distributions to choose from, I recommend Ubuntu. Out of the box, it offers a clean, well-tested set of Linux applications, utilities, and functionality.

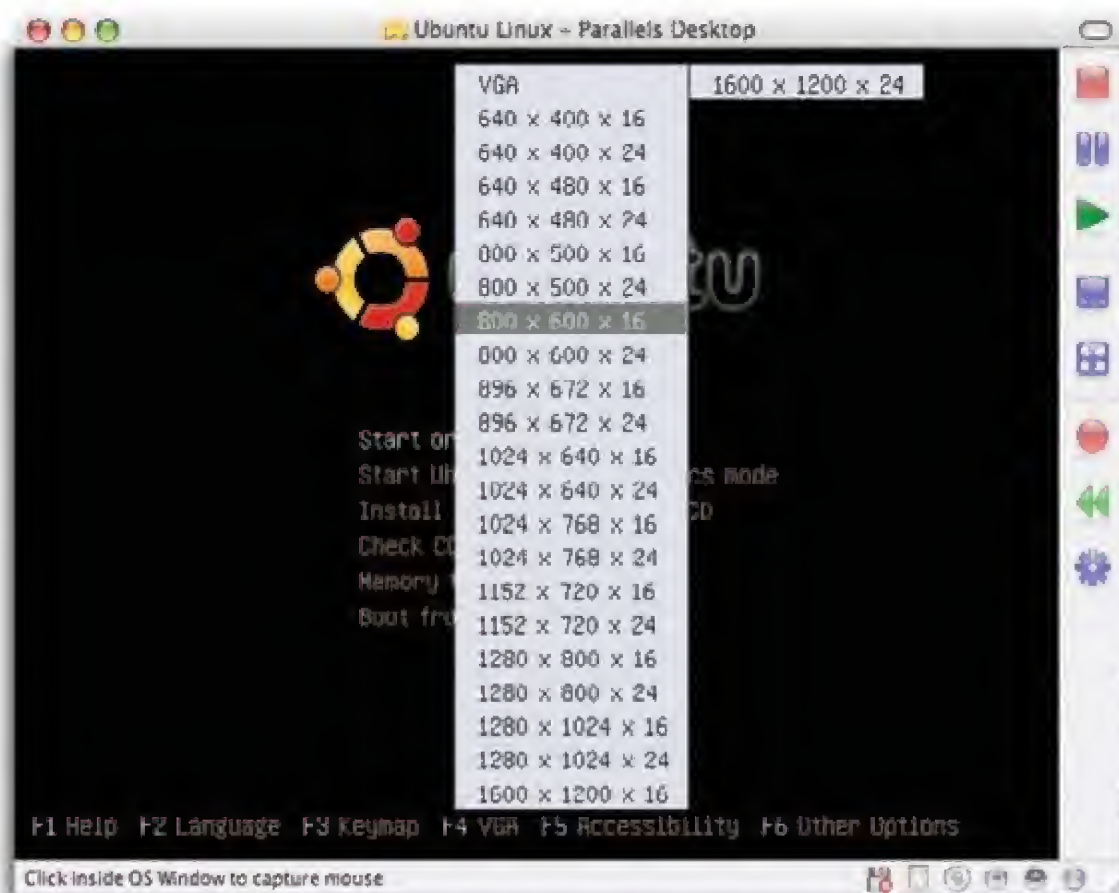
You can download Ubuntu from [www.ubuntu.com](http://www.ubuntu.com). Choose the Desktop Edition of the Standard Personal Computer version (for x86) of Ubuntu 6.06 LTS.

Before you install Ubuntu, make sure your hardware is ready. I think that 2GB of RAM is a minimum; you're also going to want at least 8GB of free space on your hard drive.

## Set Up Virtualization

Your next steps depend on the virtualization program you've chosen.

**VMware Fusion** Launch VMware Fusion and click on the New button. In



**Configuring Graphics** To make sure the Ubuntu desktop displays correctly in Parallels, press F4 as the Linux OS is booting up and select a 16-bit graphics mode.

the New Virtual Machine Assistant, click on Continue. In the next screen, choose Linux as your operating system, specify Ubuntu, and click on Continue.

When you're asked to choose a location for the virtual machine, pick a drive with sufficient free space and click on Continue. You'll also be asked to choose the size of your Virtual Hard Disk; 8GB is good.

In the next screen, click on Use Operating System Installation Disk Image File, select None: Other, and choose the Ubuntu ISO that you downloaded. Click on Finish to boot Ubuntu.

**Parallels Desktop** Launch Parallels and click on New. When the OS Installation Assistant appears, select Typical and Next. Set OS Type to Linux and OS Version to Ubuntu Linux. Then click on Next.

Give the virtual machine a name; if you want to choose a specific location for it, click on More Options and specify the drive. When you're done, click on Next.

You now pick your performance options. If you plan to run other Mac OS X applications while you're running Ubuntu, make Mac OS X faster. If you plan to run Linux all by itself, go ahead and let the virtual machine hog your computer's resources.

You'll now be prompted to insert the Ubuntu disc. If you're installing from the ISO image, click on More Options and select it. Click on Finish.

Parallels has trouble displaying 32-bit color in Linux, so click inside the Ubuntu window as soon as it starts booting, and press F4 when you see the message "Start or install Ubuntu."



From the text-mode menu that appears, use the arrow keys to select one of the 16-bit graphics modes (such as 800 × 600 × 16), and then press enter. Press enter again to boot Ubuntu.

## Install Ubuntu

Whichever virtualization program you're using, after Ubuntu boots up you should see the Ubuntu LiveCD desktop.

As soon as you click inside that window, the virtual machine's cursor should start responding to your mouse. Double-click on the desktop Install icon. Choose your language, time zone, and keyboard layout. You'll then be asked to partition your disk. Don't worry—you aren't partitioning your *real* hard disk, just the virtual one. Tell the installer to erase the entire disk, and click on Forward.

The installer will then ask you a few questions to set up your user account on the Ubuntu system. After that, review the install settings and, if you're happy with them, click on Install. When installation is finished, you'll be prompted to restart Ubuntu. After it restarts, you can log in.

## Tweak Your Setup

You're not quite done yet: you'll need to tweak your setup so you can use your

Mac's optical drive, and cut and paste text and share files between the two OSs.

To start, in Ubuntu go to System: Administration: Synaptic Package Manager, and enter your Ubuntu password. Click on Search, find the package named build-essential, and mark it for installation. Next, click on Mark All Upgrades, and then on Apply.

**VMware Fusion** Right-click on the icon for the Ubuntu ISO image on your virtual machine's desktop and choose Eject. From VMware's menus, select Virtual Machine: CD/DVD: CD/DVD Settings. Select the Specify Physical CD/DVD Drive radio button, and then choose your CD drive from the drop-down list. From Ubuntu's menus, choose System: Quit: Restart.

After Ubuntu restarts, log in and, from VMware's menus, choose Virtual Machine: Install VMware Tools. After a short delay, a window should open up on your desktop showing two files, one of them a tar.gz file. Double-click on that, and then click on Extract. Save the file to your home directory and close the windows.

Within Ubuntu, select Application: Accessories: Terminal. There, type `cd vmware-tools-distrib`, press enter,

and type `sudo ./vmware-install.pl`. You'll be asked for your Ubuntu password, so type that in now. The installer will ask you a lot of questions: accept the default answers by pressing enter until you get to the question about display resolution. Choose the one you want and press enter. You should see the message "Enjoy, the VMware team."

**Parallels Desktop** To enable Parallels to use your Mac's optical drive, choose Devices: CD/DVD-ROM 1: Default CD/DVD-ROM.

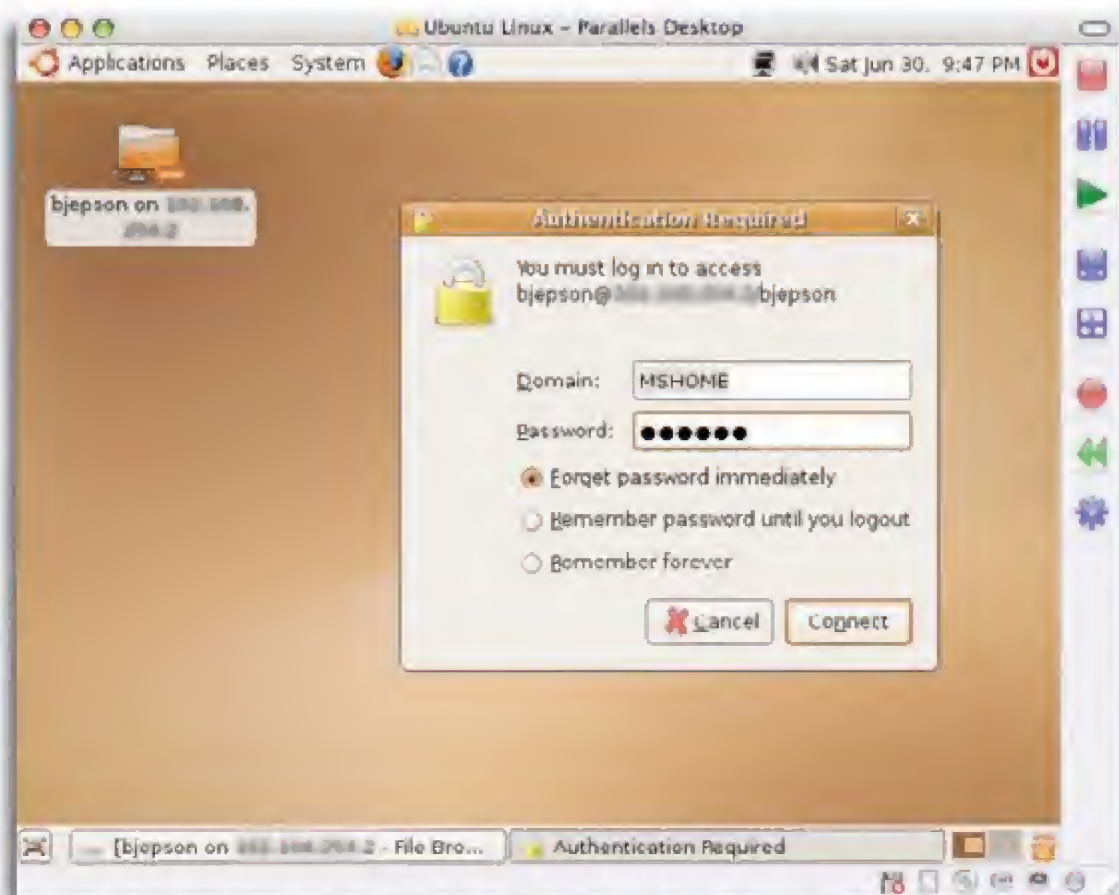
Then select Actions: Install Parallels Tools from the Parallels menu. You'll get a brief set of instructions. Within Ubuntu, open a Terminal session (again, by selecting Application: Accessories: Terminal.) At the prompt, enter `sudo mount /media/cdrom0` and provide your Ubuntu password when prompted. Next, type the command `cd /media/cdrom0` followed by `sudo sh parallels-tools.run`. When those commands are done running, reboot your virtual machine by selecting System: Quit: Restart from the Ubuntu menu.

## Share Files

To share files between Ubuntu and Mac OS X, you first need to turn on Windows file sharing in Mac OS X.

Within OS X, go to the Sharing preference pane. Choose the Services tab, select Windows Sharing, and click on the Start button. Before you leave, note the IP address that OS X says you'll need to use.

That done, go to Ubuntu and click on Places: Connect To Server. From the Service Type drop-down menu, select Windows Share. Enter the IP address of your Mac in the Server field and your Mac user name in both the User Name and Share fields, and then click on Connect. An icon for the connection should appear on the Ubuntu desktop. When you double-click on that icon, you should be prompted for the password you use to log in to OS X. You should now have access to your Mac's home directory from within Ubuntu. ☒



**Sharing Files** With Windows file sharing turned on in OS X, you then connect to the shared drive from Ubuntu by entering your OS X user name and password.

**Brian Jepson** is an editor for *Make* magazine and blogs at [www.hackszine.com](http://www.hackszine.com).



# Help Desk

## Mac OS X Hints

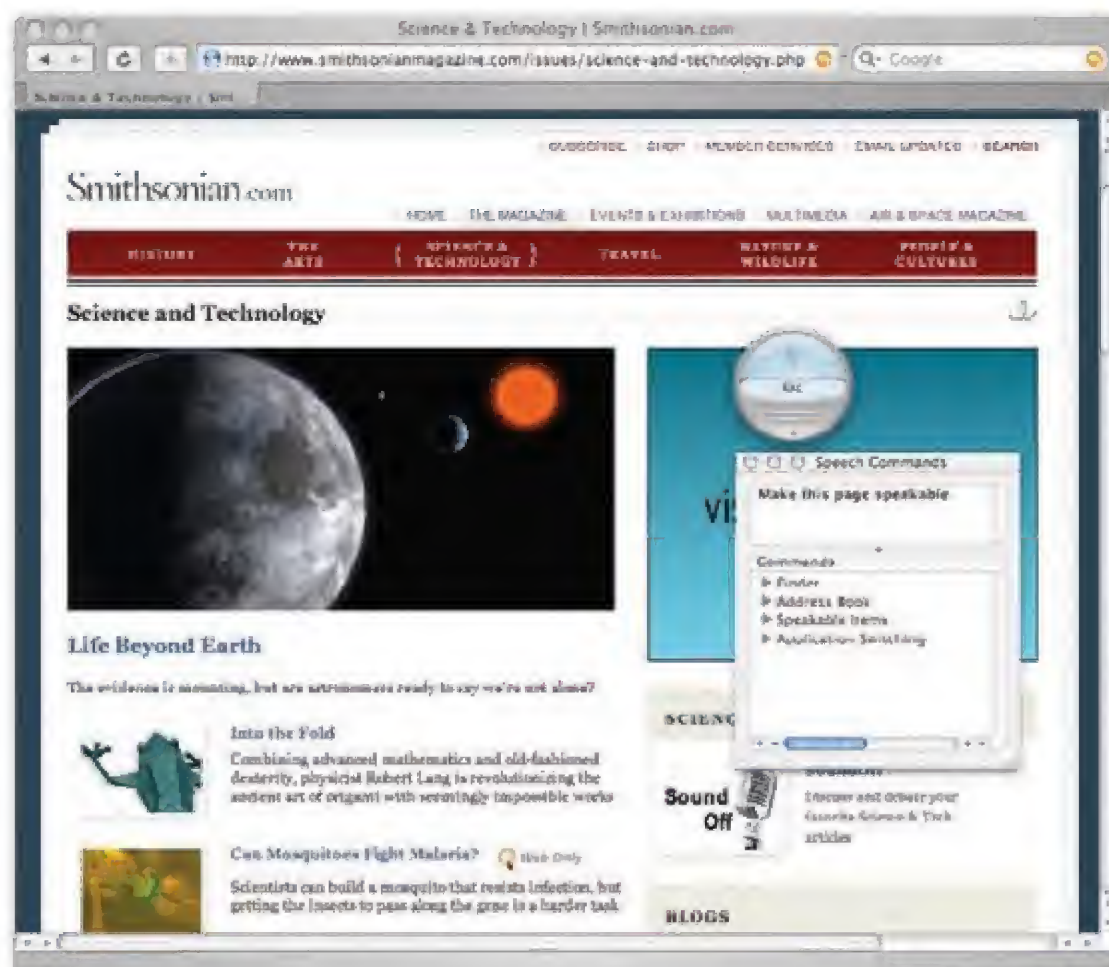
The insider tips you won't get from Apple **BY ROB GRIFFITHS**

### Surf with Your Voice

Speech recognition is probably one of the most underused features in Mac OS X. But you can do some fun and practical things with it—for instance, use your voice instead of your hands to open your Apple Safari bookmarks.

First, open the Speech preference pane, click on the Speech Recognition tab, and set Speakable Items to On. A small round window will appear on your screen; that's the speech-recognition controller. Notice the word *Esc* in the middle. This indicates the key—escape—you'll press to activate speech recognition. By default, your Mac will listen to you only when you're holding down that key. (You can change the settings in the Speech preference pane.)

Click on the small arrow at the bottom of the speech-recognition controller and choose Open Speech Commands Window from the drop-down menu. This window contains a list of preset commands that you can say to your Mac—for example, "Get my mail" or "Open my browser." Launch Safari to reveal a Safari header in the Speech Commands window. Click on the disclosure triangle, and you'll see the command Make This Page Speakable (see



**Create Spoken Bookmarks** Tired of typing? Use the Mac's built-in speech capabilities to create spoken bookmarks in Safari, and you can surf using your voice instead.

"Create Spoken Bookmarks"). This is the key to opening bookmarks with your voice. Just load the page you want to turn into a speakable bookmark (note that it doesn't have to be a page you've already bookmarked). Then press and hold the escape key while saying "Make this page speakable."

If you're successful, you'll hear the "whit" sound as the system recognizes that you've sent it a command. In the dialog box that appears, type a short, easy-to-pronounce name in the text field, and then click on OK. That's it. Now,

whenever you want to go to that page, simply hold down escape and speak the name you entered—no typing required.

### Find the Right Spot to Save

Want to save a file in a deeply buried folder? In Mac OS X 10.4, the Save and Save As dialog boxes include a handy Spotlight search field that can help you home in on the right destination. (If you can't see the search field, click on the triangle next to the Save text field to reveal it.) The only problem with these searches is that there's sometimes no

### Have a hint to share?

Go to [MacOSXHints.com](http://MacOSXHints.com) to submit it. This column was based on tips from Ngai Tseung and anonymous contributors. Each month, the author of our favorite tip receives the *Help Desk* mug.





apparent way to see exactly where the files and folders Spotlight finds are located. That means if you've got ten folders named Extra Project Files, it will be awfully hard to tell which is the right one. This next trick can help.

In the Save or Save As dialog box, click on the column-view icon. (The view icons are to the right of the arrow buttons; the left one is for list view and the right one is for column view.) Now, click in the Spotlight search field and type your search term. After you have some visible results, click on any folder in the list to select it, and then click on the list-view button. A drop-down menu will appear to the left of the Spotlight search field. Click on this and you'll see a list of items that reflects the full path to the folder you've selected.

## Seeking Symbols

Whether it's the copyright symbol (©), the divide character (÷), the registered trademark symbol (®), or the euro symbol (€), sometimes you need a character that isn't printed on your keyboard's keys. OS X has a few utilities that can help you find what you want.

The Keyboard Viewer shows you an on-screen version of your keyboard. Just select a font from the tool's Font menu and experiment with pressing combinations of option, shift, and ⌘ until you see the special symbol you're after. When you do, you've discovered the key combination you need to access it. Using the Character Palette to do this is even easier. It shows you every symbol you can create from any font. Best of all, it organizes the symbols by group—for example, Arrows or Mathematical Symbols. Choose a symbol and click on Insert to put it in your text (see "The Right Symbol").

In many programs—including the Finder, Safari, Apple's Mail, Peter Borg's Smultron (donations accepted; [smultron.sourceforge.net](http://smultron.sourceforge.net)), and more—all you need to do to open the Character Palette is select Edit: Special Characters. Another way (and apparently the only way to open the Keyboard Viewer) is to use the Input Menu, represented by a small flag icon on your menu bar. To activate this, open the International preference pane and click on the Input Menu tab.

## OS X 101

# See It All on the Dashboard

Mac OS X 10.4's Dashboard is a place where small, special-purpose applications (called widgets) reside, staying invisible until you need them. Press F12 (or launch the Dashboard program in your Applications folder) to reveal the widgets floating against the dimmed background of your open windows.

**Sample What's There** Apple ships more widgets with OS X than you see at first glance. To see what's available, activate Dashboard and click on the large plus-sign (+) button at the lower left of the screen. Some useful widgets include Dictionary, Flight Tracker, Ski Report, Unit Converter, and Weather. Add any of these to your Dashboard by clicking on its icon in this list (see "Lots of Tiny Programs").

**Work with Widgets** Widgets aren't complicated programs—they usually provide discrete bits of information, and as a result, interacting with them is pretty simple: type text into text fields, click on radio buttons, and so on. If your cursor changes into a hand as you move over the widget's window, that shows you've found a clickable hyperlink, just as with a Web page.

There are two ways to close a widget. Hold down the option key as you mouse over an open widget to reveal a small black X in its top left corner. Click on that, and the widget will close. If you've revealed the widget bar (by clicking on the big plus sign), you'll see the Xs for all open widgets.

If you see a small *i* icon in the lower right corner of a widget, click on it to flip the widget over. Here you'll find information about the widget itself and sometimes settings you can adjust. For the Stocks widget, for instance, you can edit the list of stocks.

You can open many copies of the same widget. Say you want to track the time in multiple locations: add the World Clock widget as many times as necessary by clicking on it in the Widget bar, and then use the *i* icon on each one to pick a different location.

If you notice that a widget that gets data from the Internet, such as the Stocks widget, has gotten stuck and is showing old data, refresh it manually. Click on it and press ⌘-R. You'll see a visual twisting effect, indicating that the widget is reloading.

**The Wide World of Widgets** While Apple's widgets are interesting, they're really just the tip of the iceberg. At press time, Apple's Dashboard Widgets page ([macworld.com/2363](http://macworld.com/2363)) included over 3,000 different widgets, most of them completely free.

As you go crazy with your newfound widgets, keep in mind that a little program—just like a big one—takes up some memory. Leave the few you use most often open, and access the rest through the widget bar only as you need them.



**Lots of Tiny Programs** OS X 10.4's Dashboard lets you run small informational programs, also known as widgets, in a layer of their own. Hide or reveal them by pressing F12.





**The Right Symbol** The Character Palette gives you quick access to every symbol, organized by group, in all of your fonts.

Select the check boxes next to Character Palette and Keyboard Viewer. Then select the Show Input Menu In Menu Bar option. Your region's flag should appear in the menu bar. Click on this flag to access a menu where you can choose to open the Character Palette or the Keyboard Viewer.

### Access Symbols Your Own Way

But what if you don't like having the Input menu's flag in your menu bar? Because I often use a laptop and my short menu bar already contains many items, I don't like anything that takes up more of this precious space. Luckily, you can access the Character Palette and Keyboard Viewer from your Dock, sidebar, or toolbar—if you know the trick.

Navigate to `/System/Library/Components`, control-click on the file called

## WHAT'S ONLINE

**Fix iTunes Search Lag** If you experience an annoying pause before you can type in the iTunes search field, try this tip ([macworld.com/2958](http://macworld.com/2958)).

**Get Instant iPhoto Slide Shows** Learn how to start an iPhoto slide show without having to change any settings ([macworld.com/2959](http://macworld.com/2959)).

**Hide Slide-Show Controller** Keep iPhoto's slide-show controls out of sight so you can better enjoy your images ([macworld.com/2960](http://macworld.com/2960)).



## POWER TIP OF THE MONTH

### Shrink Disk Images

A *disk image* is a single file that, when double-clicked, appears on your desktop as a typical hard drive does. You can eliminate clutter by tucking away related files you don't use often in a disk image. Better yet, you can store your sensitive files in an encrypted disk image that requires a password (go to [macworld.com/2425](http://macworld.com/2425) for instructions).



You've got two choices when you create a disk image via Apple's helpful Disk Utility (`/Applications/Utilities`). By default, when you click on New Image in Disk Utility and then click on Create, you'll get a 40MB "normal" disk image. This will take up 40MB of hard-drive space—even if you've yet to place a single file in it. Alternatively, you can click on New Image and then set the Format pop-up menu to Sparse Disk Image. A 40MB sparse disk image will occupy 40MB only if you've actually saved that much data in it.

Sparse disk images do spring one surprise on you: though they grow automatically as you add new files, they don't *shrink* when you remove those files. If you remove 40MB of data from a 40MB sparse disk image, it will still require 40MB of space. You can fix this in Terminal (`/Applications/Utilities`). Open the program and change directories to where the disk image is. (Type `cd` and then drag the folder containing the disk image to the prompt. Press return.) Then type the following command:

```
hdiutil compact "name_of_file.sparseimage"
```

That method is fine and dandy, but I prefer a faster way to condense a sparse disk image—control-clicking on the file in the Finder and choosing an Automator workflow from the contextual menu. Start by launching Automator (`/Applications`). In the Library column, click on Finder and then drag Get Selected Finder Items from the Action column to the blank work area on the right. Next, click on Automator in the Library column and then drag Run Shell Script into the work area, below the first command. In the Run Shell Script action, set the Shell pop-up menu to `/bin/bash` (it should be that by default), and set the Pass Input pop-up menu to As Arguments. Erase the entire script in the text field, and replace it with this one line:

```
hdiutil compact "$@"
```

That's all there is to it. Choose File: Save As Plug-In, and name your workflow something like Compact Sparse Image. Make sure that the Plug-in For pop-up menu is set to Finder, and click on Save. To use your workflow, select a sparse disk image (it will have the file extension *.sparseimage*), make sure it's not mounted, control-click on it, and then choose Automator: Compact Sparse Image (or whatever name you chose for your workflow). As the workflow runs, it will release any free space in your sparse disk image.

CharacterPalette.component, and choose Show Package Contents from the contextual menu. In the window that opens, navigate to the Contents/SharedSupport folder, where you'll see a file called CharPaletteServer. This is the program that displays the Character Palette. Drag it directly to your Dock, sidebar, or toolbar to make a version of it appear there for quick access. (This creates an alias; don't move the program itself.)

To do the same with the Keyboard Viewer, navigate to `/System/Library/Components` again, control-click on

KeyboardViewer.component, and choose Show Package Contents from the contextual menu. Open the Contents/SharedSupport folder inside, and drag the KeyboardViewerServer file to your Dock, sidebar, or toolbar.

Once you're sure everything works, return to the International preference pane and disable the checked items in the Input Menu tab. Your menu bar space will be yours once again. ☺

Senior Editor **Rob Griffiths** runs the [MacOSX-Hints.com](http://MacOSX-Hints.com) Web site.



# MacMania™ 7

November 3rd – 13th, 2007 • Panama Canal

[www.GeekCruises.com/Mac-7](http://www.GeekCruises.com/Mac-7)

## Mac Seminars

- Introduction to Lightroom
- Introduction to Aperture
- iPhone: The Missing Manual
- Maximizing iPhoto
- Photoshop for Photographers
- Integrating Photoshop with Aperture, Lightroom, or iPhoto
- Which Is Best for You — Aperture, Lightroom, or iPhoto?
- iDVD and iMovie
- Apple's Latest and Greatest
- The Ground Floor Guide to the Macintosh
- Extreme Googling
- Inside Mac OS X "Leopard"
- Leopard Power User Tips
- Introduction to iLife
- Pushing iLife to the Limit
- Amazingly Cool Utilities
- Personal Podcasting Primer



## Speakers

Janet Hill • David Pogue  
Randal Schwartz • Jason Snell  
Derrick Story • Robin Williams  
Steve Wozniak



## The Conference

Cruise prices vary from \$1,399 for an Inside Stateroom to \$4,999 for a Full Suite, per person. (Cruise pricing is subject to change. Geek Cruises will generally match the cruise pricing offered at the Holland America website at the time of booking.) Taxes are \$199 per person. For those attending the conference, there is a \$795 fee and includes all courses listed, any course materials, and two private Geek Cruises parties.

CST# 2065380-40

CO-PRODUCED BY:

**Insight Cruises**  
EDUCATION THAT TAKES YOU PLACES

**Macworld**



# Mac 911

Solutions to your most vexing Mac problems **BY CHRISTOPHER BREEN**

## Blurry iMovie Stills

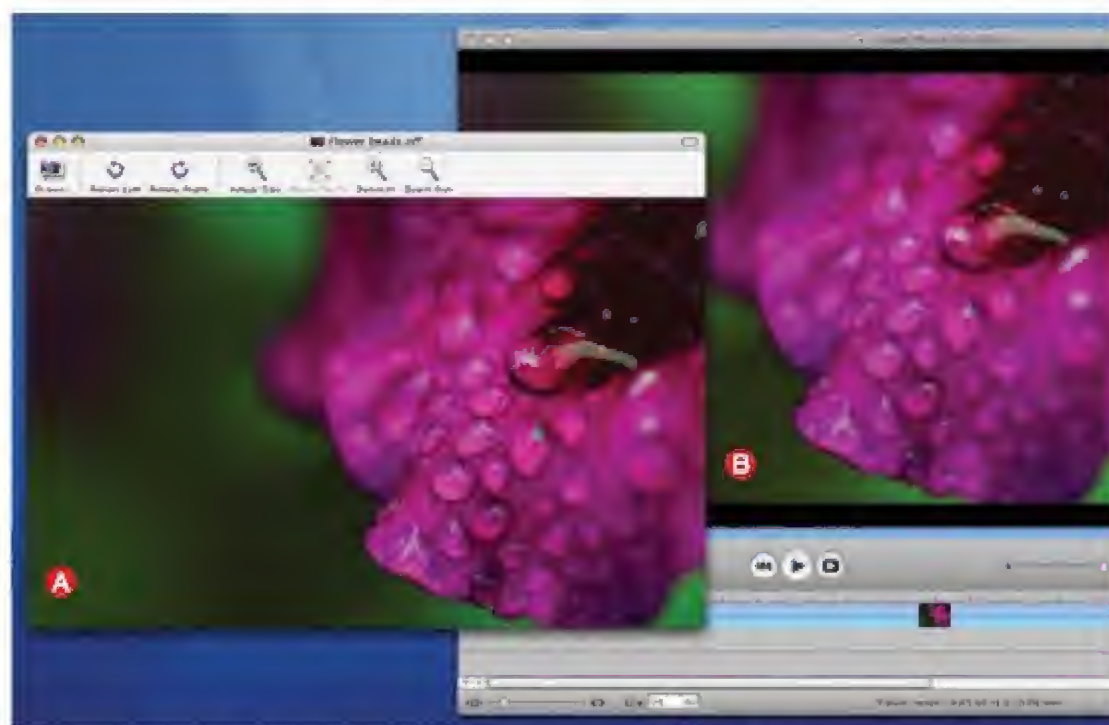
**Q:** Even if my pictures are sharp in iPhoto, they lose quality when I add them to an iMovie project and then burn them to disk with iDVD. After a transition, each picture appears fuzzy before snapping into focus. Is there anything I can do to solve this problem?

**Jim Houle**

**A:** There's no quick fix for this one, but you can do a few things to get better results with Apple's iMovie HD (/Applications). First, it's important to realize that iMovie doesn't display previews of still images all that well. You can improve this by choosing iMovie HD: Preferences, clicking on Playback, and enabling the Highest (Field Blending) option. This will make the previews look better—although still not great. Luckily, what you're seeing is *only* a preview, not the real thing. The rendered images will look better when you export the movie.

To make the finished product look as good as possible, check that your still images are at least 640 by 480 pixels. Anything less, and iMovie will blow up the images to fit the frame, which leads to unsightly pixelation (see "Pixelated Preview").

I also recommend that you avoid using iMovie transitions such as fades and dissolves with your stills. During and just after the transition, the images



**Pixelated Preview** The still image of this flower looks crisp **A**. But when you use it in a slide show in iMovie, you get a fuzzy preview **B** by default.

can look pixelated and grainy. A quick cut will provide cleaner-looking video.

You can also improve picture quality by exporting your movie using QuickTime's Expert Settings rather than sending it directly to iDVD via iMovie's Share: iDVD command. Choose Share: QuickTime, select Expert Settings from the Compress Movie For pop-up menu, click on Share, and, in the resulting Save Exported File As dialog box, choose Movie To MPEG-4 from the Export pop-up menu and LAN/Intranet from the Use pop-up menu. Click on Save. Once you've saved the movie, you can drag it into an iDVD project to add it.

Finally, if you really want to make the best-looking slide shows possible in iDVD, skip iMovie and just use iDVD to create them. To do this, open iDVD and choose Project: Add Slideshow, and then double-click on the My Slideshow entry that appears

on your project's main screen. In the screen that reads Drag Images Here, do exactly what it says—either by selecting and dragging images from the Media Browser or by dragging images from the Finder into the window. Use the Slide Duration pop-up menu to choose how long you'd like the images to appear on screen, add a transition and music, and click on the play button to see how the slide show will look when burned to DVD. I think you'll be far happier with the results you get.

## The Nonprinting Printer

**Q:** I own an Epson Stylus Color 880 printer. The last time I installed new cartridges, I used third-party inks instead of Epson's to save a few bucks. The printer thinks these cartridges are half full, yet it still won't print. What's going on?

**John Boyd**



### Have a problem?

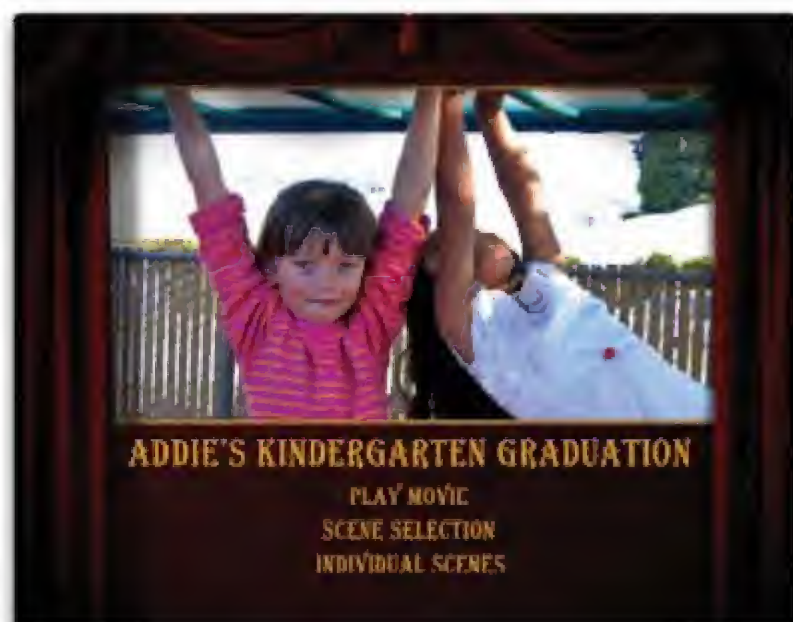
Go to the Mac 911 forum ([macworld.com/2467](http://macworld.com/2467)) for help with your misbehaving Mac or applications.



**A:** The printer thinks the printer cartridges are half full because, quite likely, they are. The most probable reason it won't print is because the nozzles are gunked up. Although it would be easy to blame the non-Epson inks you used, it's possible that gunk has accumulated because you haven't used the printer very often. I've owned a few Epson ink-jets, and my experience has been that unless I print at least every three to five days, the print head's nozzles get clogged. And I'm not alone. If you look, you'll notice that Epson's FAQ for this printer ([macworld.com/2948](http://macworld.com/2948)) puts clogged print nozzles at the top of the list of the most common issues.

Epson recommends that you use its printer utility to perform head-cleaning and nozzle-check tests. These should blow the gunk out of the nozzles. Run the tests up to three times. If that doesn't work, the company suggests trying a new cartridge. If that's a no-go as well, Epson recommends that you take the printer in for service.

Because such service can be expensive, I'll suggest one other thing to try before you send it to the shop. The Web site [Fixyourownprinter.com](http://Fixyourownprinter.com) offers cleaning kits for a wide variety of printers. For \$10 plus shipping and handling, the company will sell you a bottle of print-head cleaning solution, which the company claims matches Epson's formula.



**Chapters and Clips** If you have the desire (and room on your disc), you can create a DVD that gives you the choice to either play individual clips from a movie or just watch the whole thing in one long sequence.



## TOOLS OF THE TRADE

### Awesome Automator Workflows

Just about everyone has heard of Automator, the OS X utility designed to automate tiresome tasks. Yet how many of you use it? I thought so. To give you a leg up, allow me to devote this month's *Tools of the Trade* to some of the more useful Automator workflows I've found on the Automator.us Web site. Although Automator.us doesn't provide these workflows in downloadable form (because you'll want to customize them), it does provide easy-to-follow instructions for creating them.

**Rename Finder Items** ([macworld.com/2950](http://macworld.com/2950)) Your digital camera likely slaps your images with bewildering names like DSC\_3511.jpg or 12A\_0099. Use this workflow to change the names of selected files to something of your choosing, numbered sequentially—Vacation-9.07-001.jpg, Vacation-9.07-002.jpg, and so on. You can save this workflow as an Automator Finder plug-in and invoke it by selecting multiple items in the Finder, control-clicking on one of them, and choosing Automator: Rename Finder Items from the resulting contextual menu. (The site explains how to save the workflow as a plug-in.)

**Images from Web Pages** ([macworld.com/2951](http://macworld.com/2951)) This workflow's name nicely describes its purpose. Feed it the address of an image-rich Web page; it seeks the larger images linked to thumbnails on that page, and then downloads those larger images to your Pictures folder. That can come in handy if you'd like to, say, download the contents of a Web-based photo gallery.

**Desktop Mailer** ([macworld.com/2952](http://macworld.com/2952)) Want to save time whenever you have a file on your desktop that you'd like to send with an e-mail? These three workflows can help. They include Attach Selected Items To New Mail Message, Mail The Selected Items, and Archive And Mail The Selected Items. As with the Rename Finder Items workflow, you can save them as Finder plug-ins for easy access.



### iMovie Chapters as iDVD Clips

**Q:** I use iMovie and iDVD to make DVDs of family video clips. I would like to map the DVD chapters so that after each one plays, you return to the DVD

menu instead of continuing on to the end of the DVD. Is there a way to do this, either as part of the iMovie building process or when I'm working in iDVD?

**Bob Flint**

**A:** iMovie's description of chapter designations as *markers* is apt (they're called *chapters* after you've imported the video into the iDVD project). The markers don't actually divide the video—they're simply book-

marks pointing to a particular position within it. Although you can select one of the markers to begin watching the video at that point, playback doesn't stop at the beginning of a new chapter.

Getting the results you seek is kind of a pain, but it is possible. Return to the original iMovie project and select the contents of your first chapter—this can include the opening title, scenes and transitions, and any extra audio tracks you've included. (Note that if you want to include both video and extra audio tracks, you'll need to drag a selection rectangle over all the tracks, as iMovie doesn't allow you to select multiple tracks by ⌘-clicking.)

Copy the selected material. Create a new iMovie project and paste the selected material into the new movie. If the pasted material ends without a transition, add a fade-out so that the chapter doesn't end abruptly. If it ends with a transition other than a fade-out, replace the current transition with a fade-out. Save your project



and repeat this copy, paste, and save process for every chapter, giving each one a descriptive name when you save it. It's also a good idea to add a fade-in transition for succeeding chapters so that their beginnings seem a little smoother.

Now, launch iDVD and, from the main page, choose Project: Add Submenu. The label My Submenu will appear on the iDVD screen. Change the name to reflect what you're going to put here—call it Individual Scenes, for example. Then double-click on this new submenu to move to its screen.

In the Finder, locate the iMovie project files you created and drag them, in order, into this screen. When you burn your DVD, you will now be able to access the individual chapters from your Individual Scenes screen.

If you have enough room on the DVD, it's worthwhile to include these individual scenes *and* the original movie with its chapter marks (see "Chapters and Clips"). That way you can navigate your video in the traditional way—playing it straight through from the beginning or from a selected chapter to the end—or you can select individual chapters and return to the DVD's menu after each one plays.

## Sync Select Contacts

**Q:** Is there a way to archive the phone numbers and addresses of contacts I don't need any more? I sync my Motorola Razr phone with my iMac's address book, but the latter includes names of people I'm no longer in touch with, as well as business contacts I don't currently use. Ideally I'd like to have two address books—one to sync with my Razr and one for archiving.

Andrew Harris

**A:** There's no need for two address books when one will do the job. Thanks to the Group feature within Apple's Address Book (in /Applications), you don't need multiple address books. Just click on the plus-sign (+) button beneath the Group pane at the left of the Address Book window, create a new group called Old Contacts, and drag the contacts you no longer need into this group. If you'd like to make a backup of the group so you can then delete these

## Bugs & Fixes BY TED LANDAU



### Adobe CS3 Security Breach

When you install Adobe Version Cue CS3 Server (included as part of Adobe CS3), its installer turns off your Mac's firewall (if it's on) and then adjusts the settings of ports the program will need to function. Unfortunately, the installer forgets to turn the firewall back on after completing its task. Oops! To reenabling the firewall yourself, you must go to the Sharing preference pane, select the Firewall tab, and click on Start. It's disturbing that a third-party installer can turn off your Mac's firewall without explicit permission and without even notifying you that it has done so. Adobe should provide an update that stops this practice, and Apple should issue a security update to prevent it.



### Adobe CS3 Installation

**Errors** You might see an odd error message—for example, "Installing Adobe Photoshop CS3 results in a conflict with Adobe Photoshop CS3"—when you try to install the latest version of Photoshop. If so, you probably have an older, prerelease version of Adobe Photoshop CS3 on your drive. You must uninstall it—simply dragging the old application to the Trash won't work. Run the uninstall utility in /Applications/Utilities/Adobe Installers. If that doesn't work, use Adobe's more comprehensive uninstaller, Adobe CS3 Clean Script (see [macworld.com/2949](http://macworld.com/2949)).



### Safari 3.0 PDF Crashes

Safari 3.0 (at press time a beta version) may crash when you click on a link to view a PDF file. The cause is a conflict

between Safari and the AdobePDFViewer.plugin file, located in /Library/Internet Plug-Ins. Check Adobe's Web site to confirm that you're using the latest version of Adobe Reader ([macworld.com/1372](http://macworld.com/1372)); if you're not, update it. If that doesn't fix the problem, launch Adobe Reader (in /Applications), select Adobe Reader: Preferences, and select the Internet category. Deselect the Display PDF in Browser Using option to remove the plug-in. If Safari is open, quit and relaunch it. PDF files should now load using Safari's built-in PDF viewing engine—and without causing a crash.



### Forgetful Web Site Fix

If you choose to have Web sites remember your name and password for future logins, you may be surprised if a site suddenly requires you to enter this information manually. Worse, the site might claim that your login name or password is incorrect. The problem here is probably a corrupt cookie file (or files). Delete the problem file, and the site should create a fresh one. In Safari, select Safari: Preferences and click on Security. In the window that appears, click on Show Cookies. In the list, find any files that contain the name of the problem Web site. Select these and click on Remove. You should now be able to log in successfully.

Senior Contributor **Ted Landau** is the founder of MacFixIt ([www.macfixit.com](http://www.macfixit.com)), a Web site devoted to reporting Mac problems and solutions. Got a problem to report? E-mail [bugs@macworld.com](mailto:bugs@macworld.com) or post it in our Mac 911 forum at [Macworld.com](http://Macworld.com).

contacts from Address Book, just drag Old Contacts to the desktop. This creates a single vCard file containing the contacts. Store it wherever you like. To retrieve its contents, drag it back into Address Book.

Now create a new group and call it something like Phone Contacts. Drag into this group any contacts that you would like to sync with your phone. Open iSync (in /Applications), select your phone at the top of the window, and, from the Synchronize pop-up menu

that appears under the Contacts heading, choose your Phone Contacts group. If you want to transfer only those contacts with phone numbers to the Razr, click on the More Options button at the bottom of the window and make sure the Only Synchronize Contacts With Phone Numbers option is selected. ☐

Senior Editor **Christopher Breen** is the author of *The iPod and iTunes Pocket Guide*, second edition (Peachpit Press, 2007) and *The iPhone Pocket Guide* (Peachpit Press, 2007).



# ADVERTISERS INDEX

Interact with the companies whose products and services are advertised in **Macworld**.

ADVERTISER	INTERACT	PAGE NO.
<a href="#">2 Degrees Frost</a>	<a href="#">2degreesfrost.com</a>	100
<a href="#">4 Over Inc.</a>	<a href="#">4over.com</a>	107
<a href="#">Academic Superstore</a>	<a href="#">mw.academicsuperstore.com</a>	110
<a href="#">Acme Made</a>	<a href="#">acmemade.com</a>	100
<a href="#">AMCC</a>	<a href="#">3ware.com</a>	41
<a href="#">AmericasPrinter.com</a>	<a href="#">americasprinter.com</a>	105
<a href="#">Apple Computer</a>	<a href="#">apple.com</a>	C2-1
<a href="#">Audioengine</a>	<a href="#">audioengineusa.com</a>	101
<a href="#">Biomorph</a>	<a href="#">biomorph.com</a>	102
<a href="#">Brother International</a>	<a href="#">brother.com</a>	2-3
<a href="#">Buffalo Technology</a>	<a href="#">buffalotech.com</a>	27, 45
<a href="#">Campus Tech</a>	<a href="#">campustech.com/mac</a>	110
<a href="#">Case-Mate</a>	<a href="#">case-mate.com</a>	63
<a href="#">CDW</a>	<a href="#">cdw.com</a>	23
<a href="#">Circus Ponies Software, Inc.</a>	<a href="#">circusponies.com</a>	25
<a href="#">Creative Juices</a>	<a href="#">bigposters.com</a>	108
<a href="#">Dr. Bott, LLC.</a>	<a href="#">drbott.com</a>	30-31
<a href="#">DriveSavers Data Recovery Inc.</a>	<a href="#">drivesavers.com</a>	106
<a href="#">E&amp;B Company</a>	<a href="#">ebcases.com</a>	101
<a href="#">EDG Graphics</a>	<a href="#">edgmiami.com</a>	108
<a href="#">ESS Data Recovery Labs</a>	<a href="#">savemyfiles.com</a>	106
<a href="#">Ex-Cinder</a>	<a href="#">ex-cinder.com/mw09.html</a>	104
<a href="#">FastMac</a>	<a href="#">fastmac.com</a>	104
<a href="#">FatCow</a>	<a href="#">fatcow.com/mac</a>	109
<a href="#">Fujitsu</a>	<a href="#">us.fujitsu.com</a>	8
<a href="#">Geek Cruise</a>	<a href="#">geekcruises.com</a>	89, 104
<a href="#">GPS City</a>	<a href="#">gpscity.com</a>	103
<a href="#">Granite Digital</a>	<a href="#">granitedigital.com</a>	100
<a href="#">Griffin Technology</a>	<a href="#">griffintechology.com</a>	13
<a href="#">FastMac</a>	<a href="#">fastmac.com</a>	104
<a href="#">FatCow</a>	<a href="#">fatcow.com/mac</a>	109
<a href="#">Fujitsu</a>	<a href="#">us.fujitsu.com</a>	8
<a href="#">Geek Cruise</a>	<a href="#">geekcruises.com</a>	89, 104
<a href="#">GPS City</a>	<a href="#">gpscity.com</a>	103
<a href="#">Granite Digital</a>	<a href="#">granitedigital.com</a>	100
<a href="#">Griffin Technology</a>	<a href="#">griffintechology.com</a>	13
<a href="#">Fujitsu</a>	<a href="#">us.fujitsu.com</a>	8
<a href="#">Geek Cruise</a>	<a href="#">geekcruises.com</a>	89, 104
<a href="#">GPS City</a>	<a href="#">gpscity.com</a>	103
<a href="#">Granite Digital</a>	<a href="#">granitedigital.com</a>	100
<a href="#">Griffin Technology</a>	<a href="#">griffintechology.com</a>	13
<a href="#">Hewlett-Packard</a>	<a href="#">hp.com/go/zhotdeals5</a>	21
<a href="#">Hildreth Enterprises</a>	<a href="#">pcprices.net/mac</a>	108
<a href="#">i-Luv</a>	<a href="#">i-luv.com</a>	51
<a href="#">i-Luv</a>	<a href="#">i-luv.com</a>	37
<a href="#">iHome</a>	<a href="#">ihomeaudio.com</a>	37
<a href="#">IMSI</a>	<a href="#">turbocad.com/mw06</a>	104
<a href="#">Journey Education</a>	<a href="#">journeyed.com</a>	111
<a href="#">Just For Five</a>	<a href="#">ipodminimall.com</a>	103
<a href="#">Kace</a>	<a href="#">kace.com/macworld</a>	100
<a href="#">LaCie</a>	<a href="#">lacie.com</a>	15

ADVERTISER	INTERACT	PAGE NO.
<a href="#">Mac of All Trades</a>	<a href="#">macofalltrades.com</a>	110
<a href="#">Mac Solutions</a>	<a href="#">macsolutions.com</a>	108, 111
<a href="#">Macally</a>	<a href="#">macally.com</a>	103
<a href="#">MacConnection</a>	<a href="#">macconnection.com/mw</a>	96-97
<a href="#">MacHighway</a>	<a href="#">machighway.com</a>	108
<a href="#">MacMall</a>	<a href="#">macmall.com</a>	4, 94-95
<a href="#">MacTank</a>	<a href="#">mailtank.com</a>	104
<a href="#">Marware</a>	<a href="#">marware.com</a>	12, 101
<a href="#">Maxtor</a>	<a href="#">maxtorsolutions.com</a>	39
<a href="#">MegaMacs</a>	<a href="#">megamacs.com</a>	111
<a href="#">Micromat</a>	<a href="#">micromat.com</a>	C4
<a href="#">MicroReplay</a>	<a href="#">microreplay.com</a>	109
<a href="#">New Egg</a>	<a href="#">newegg.com</a>	16-17
<a href="#">Omni Group</a>	<a href="#">omnigroup.com</a>	47
<a href="#">Other World Computing</a>	<a href="#">macsales.com</a>	C3, 11, 98-99
<a href="#">QuickerTek</a>	<a href="#">quickertek.com</a>	104
<a href="#">Radtech</a>	<a href="#">radtech.com</a>	102
<a href="#">Raidon Technology</a>	<a href="#">stardom.com/tw/dvs</a>	26
<a href="#">Rain Design</a>	<a href="#">raindesigninc.com</a>	102
<a href="#">Ramjet</a>	<a href="#">ramjet.com</a>	105
<a href="#">Roland</a>	<a href="#">rolandus.com</a>	22
<a href="#">Rosetta Stone</a>	<a href="#">rosettastone.com/ozs107</a>	77
<a href="#">Sanyo</a>	<a href="#">sanyodigital.com</a>	29
<a href="#">SeafoodByNet</a>	<a href="#">seafoodbynet.com</a>	111
<a href="#">Seiko Instruments</a>	<a href="#">www.siibusinessproducts.com</a>	10
<a href="#">Sharpdots</a>	<a href="#">sharpdots.com</a>	105
<a href="#">Shreve Systems</a>	<a href="#">shrevesystems.com</a>	110
<a href="#">Sierra Sound</a>	<a href="#">sierrasound.com</a>	100
<a href="#">TechRestore</a>	<a href="#">techrestore.com</a>	106
<a href="#">Sanyo</a>	<a href="#">sanyodigital.com</a>	29
<a href="#">SeafoodByNet</a>	<a href="#">seafoodbynet.com</a>	111
<a href="#">Seiko Instruments</a>	<a href="#">www.siibusinessproducts.com</a>	10
<a href="#">Sharpdots</a>	<a href="#">sharpdots.com</a>	105
<a href="#">Shreve Systems</a>	<a href="#">shrevesystems.com</a>	110
<a href="#">Sierra Sound</a>	<a href="#">sierrasound.com</a>	100
<a href="#">TechRestore</a>	<a href="#">techrestore.com</a>	106
<a href="#">Seiko Instruments</a>	<a href="#">www.siibusinessproducts.com</a>	10
<a href="#">Sharpdots</a>	<a href="#">sharpdots.com</a>	105
<a href="#">Shreve Systems</a>	<a href="#">shrevesystems.com</a>	110
<a href="#">Sierra Sound</a>	<a href="#">sierrasound.com</a>	100
<a href="#">TechRestore</a>	<a href="#">techrestore.com</a>	106
<a href="#">Techshell</a>	<a href="#">techshell.com</a>	103
<a href="#">V-Moda</a>	<a href="#">v-moda.com</a>	53
<a href="#">Verizon</a>	<a href="#">verizonwireless.com/usb720</a>	7
<a href="#">VitalSource</a>	<a href="#">vitalsource.com</a>	24
<a href="#">VitalSource</a>	<a href="#">vitalsource.com</a>	24
<a href="#">Volkswagen</a>	<a href="#">volkswagen.com</a>	35
<a href="#">Wholesale Printing Direct</a>	<a href="#">wholesaleprintingdirect.com</a>	109
<a href="#">Wi-Gear</a>	<a href="#">imuffs.com</a>	40
<a href="#">zCover</a>	<a href="#">zcover.com</a>	43
<a href="#">Zicplay</a>	<a href="#">play-ewoo.com</a>	73
<a href="#">Zoo Printing</a>	<a href="#">zooprintingtrade.com</a>	108



# The All NE

The NEW Apple® iMac® now boasts faster speeds, your choice of Intel Core 2 Duo or Intel Core 2 Extreme processing, a bigger hard drive, new graphics and more! And it all comes in a new sleek and stylish aluminum casing that turns your desktop into the centerpiece of your home or office! Call MacMall today and discover this union of elegance and functionality for yourself!

*New!*

## MacMall Exclusive Deals!

Get up to \$200 cash back!  
Parallels Desktop 3.0 only \$9<sup>99</sup>!  
HP or Epson Printer **FREE!**  
Laptop backpack only \$9<sup>99</sup>!  
See below for details.

Inside the aluminum and glass design of your NEW iMac, you'll find faster speeds on iSight camera, 802.11n wireless and more powerful graphics!

The NEW iMac includes an ultra-thin keyboard with two USB 2.0 ports along with keys for one-touch control of special Mac functions!

Ships with NEW iLife '08!



### Apple MacBook™

- 13" glossy widescreen display
- Intel Core 2 Duo processing up to 2.16GHz
- AirPort Extreme 802.11g wireless
- Built-in iSight™ and Gigabit Ethernet

starting at ~~\$1094~~ - \$75 = **\$1019!** #7248171



### 8-Core and 4-Core Mac® Pro

- Two Dual-Core Intel Xeon processors or two Quad-Core Intel Xeon processors
- Incredible storage expansion up to 3TB
- 16X SuperDrive™ (DVD±R DL/DVD±RW/CD-RW)

starting at ~~\$2194~~ - \$100 = **\$2094!** #7098933

## MacMall is the #1 Apple Direct Reseller!

### Faster wireless! Advanced storage! Cool peripherals!

**Apple iLife '08**  
#7288385

*New!*

only **\$69<sup>98</sup>!**

#7283386 Apple iLife '08 Family Pack \$89<sup>98</sup>

**Office 2004 for Mac Student and Teacher Edition**  
#399933

*New!*

~~\$124<sup>98</sup>~~ **\$99<sup>98</sup>!**

After \$25 mfr. mail-in rebate. Price before rebate is \$124.98. Ends 9/3/07.

**500GB d2 Quadra HD eSATA, FW800/400 and USB 2.0**  
#7185563

*New!*

only **\$189<sup>99</sup>!**

**QuarkXPress 7**  
#7175856

*New!*

upgrade only **\$244<sup>99</sup>!**

**Apple Final Cut® Studio 2**  
#7236215

*New!*

upgrade only **\$473<sup>99</sup>!**

#7236099 Final Cut Studio Full Package \$1199<sup>99</sup>

**Apple iWork® '08**  
#7288383

*New!*

only **\$69<sup>98</sup>!**

#7283384 Apple iWork '08 Family Pack \$89<sup>98</sup>

**160GB FireWire® Hard Drive Designed by F.A. Porsche**  
#267261

*New!*

only **\$69<sup>99</sup>!**

**V270 Cordless Optical Notebook Mouse for Bluetooth**  
#705299

*New!*

only **\$47<sup>99</sup>!**

**Apple AirPort® Extreme Base Station**  
802.11a/b/g/n  
#7288377

*New!*

only **\$178<sup>99</sup>!**

**Apple 23" Cinema HD Display**  
#459837

was \$994  
now **\$894!**

WE'LL BEAT ANY PRICE ON ANY APPLE PRODUCT! is a competitive guarantee on any Apple computer. We may require proof of dealer's pricing. Competitor must be an Apple Authorized Reseller. Product must be in stock at the competition. Advertised item must be identical to the one offered by MacMall and must be a new item in a factory sealed box. We reserve the right to limit quantity ordered. This offer does not apply to special, bonus or free offers, grand openings, special purchases or special buys, manufacturer's rebates, discounts, clearances or to desktop, tower or laptop or other limited quantity offers. Offer does not apply to advertising orders made by any authorized dealer, not open to students, and where prohibited. Every offer not valid in conjunction with other rebate offers. On multiple item purchase, "We'll Beat Any Price" applies to the price of the order total, not individual line items. Offer applies to pre-labeled prices only. Offer valid only at time of purchase, not after the fact.

■ UP TO \$200 CASH BACK OFFER: Get up to \$200 Cash Back via MacMall mail-in rebate with purchase of select computer models. Ends 9/4/07. ■ PARALLELS DESKTOP OFFER: Get Parallels Desktop 3.0 for Mac #72576140 for only \$9.99 after \$10 mfr. and \$80 MacMall mail-in rebate with purchase of any new Intel-based Apple CPU. Price before rebate is \$79.99. Ends 9/3/07. ■ FREE PRINTER OFFER: Get an HP Photosmart C3100 All-in-One FREE after \$20 MacMall instant rebate and after \$29.99 MacMall mail-in and \$10 mfr. mail-in rebates with purchase of any Apple computer. Price before rebate is \$99.99. OR get an Epson Stylus Photo R250 Printer FREE after \$19.99 MacMall mail-in and \$10 mfr. mail-in rebates with purchase of any Apple computer. Price before rebate is \$29.99. OR get an Epson Stylus Photo R250 Printer FREE after \$19.99 MacMall mail-in and \$10 mfr. mail-in rebates with purchase of any Apple computer. Price before rebate is \$29.99. OR get an Epson Stylus Photo R250 Printer FREE after \$19.99 MacMall mail-in and \$10 mfr. mail-in rebates with purchase of any Apple computer. Price before rebate is \$29.99. Ends 9/4/07. ■ FREE SPENTHAVEN BLACK FLY CASE (OFFER) Free after \$6.99 mail-in rebate with iPod Video purchase (new 3GB/8GB models). Price before rebate is \$6.99. Ends 9/4/07. ■ FREE ACRYLIC CASE OFFER: Free with purchase of any Apple iPod nano. Price before rebate is \$14.99. OR get an Apple iPod nano. Price before rebate is \$14.99. Ends 9/4/07. ■ FREE EMERSON OFFER: Get select iPod and iPod nano models approved for FREE when you purchase them through MacMall. No rebate required. Not available for 128 Special Edition Photo iPod shuffle. There is a \$9.99 charge for select iPods. Call or visit [www.macmall.com](http://www.macmall.com) to place your order.

■ FREE FM TRANSMITTER OFFER: After \$19.99 MacMall mail-in rebate. Price before rebate is \$19.99. Ends 9/4/07. ■ ALL OFFERS VALID ONLY WHILE SUPPLIES LAST. ■ For rebate terms and conditions, please visit our Web site and enter the applicable part number. Download rebate coupons at [www.macmall.com](http://www.macmall.com).



# WiMac.

- NEW! Intel Core 2 Duo processor at up to 2.4GHz or Intel Core 2 Extreme processor at 2.8GHz
- NEW! Up to 320GB Serial ATA hard drive
- NEW! Glossy widescreen display
- NEW! ATI Radeon HD video graphics
- NEW! Aluminum casing and ultra-thin keyboard
- iSight™, 802.11n wireless and Gigabit Ethernet

~~\$1194~~-\$50 (mail-in rebate)

iMac starting at

**\$1144!** Finance for \$36/mo

NEW 20" Apple iMac®—2GHz Intel Core 2 Duo  
#7288171 only ~~\$1194~~-\$50 = \$1144!\*

NEW 20" Apple iMac®—2.4GHz Intel Core 2 Duo  
#7288181 only ~~\$1494~~-\$75 = \$1419!\*

NEW 24" Apple iMac®—2.4GHz Intel Core 2 Duo  
#7288182 only ~~\$1794~~-\$100 = \$1694!\*

NEW 24" Apple iMac®—2.8GHz Intel Core 2 Extreme  
#7288393 only ~~\$2294~~-\$100 = \$2194!\*

**Hot NEW iPhone accessories!**  
Get the best selection at  
[www.macmall.com](http://www.macmall.com)



New Adobe Creative Suite 3!



NEW Master Collection CS3!  
only \$2499! #7228222

NEW Adobe Creative Suite 3!  
Upgrades from \$393!\*

MacMall is your source for LCD and plasma widescreen TVs!

Panasonic. JAMBO. ViewSonic. SILEVIA. SHARP.

## NEW Mac mini—up to 39% faster!

The incredibly compact Apple Mac mini is a compact dynamo of power! Just plug in your keyboard, mouse and display and you're ready for action!

- NEW! Intel Core 2 Duo processor up to 2GHz
- NEW! 1GB DDR2 SDRAM; exp. to 2GB
- NEW! Up to 120GB Serial ATA hard drive
- iSight™, 802.11g wireless & Gigabit Ethernet



Ships with NEW iLife '08!

**New!**

~~\$594~~-\$25 (mail-in rebate)

Mac mini starting at

**\$569!** (1.66GHz)

#7288184 Finance for \$18/mo

#7288185 Intel Core 2 Duo 2GHz starting at ~~\$794~~-\$25 = \$769!\*



## MacBook Pro™—over 50% faster!

- NEW! Intel Core 2 Duo speeds up to 2.4GHz
- NEW! NVIDIA video graphics
- NEW! Mercury-free 15" LCD
- Built-in iSight™, wireless & Gigabit Ethernet



**New!**

Bundles available with Windows XP and Windows Vista pre-installed!

Call or visit [www.macmall.com](http://www.macmall.com) for details!

starting at ~~\$1994~~-\$150 = **\$1844!**

#7254324 Finance for \$60/mo

Go to [www.macmall.com](http://www.macmall.com) for more closeout deals!



**Closeout!**

### 15.4" MacBook Pro 2.33GHz

- 2.33GHz Intel Core 2 Duo
- 120GB HD
- 2GB DDR2 SDRAM
- 6X SuperDrive

original price \$2,494

~~\$2199~~-\$150 (mail-in rebate)

**\$2049!** #7133509 While supplies last  
#7133537 Glossy display! Call for details.



**Closeout!**

### 17" MacBook Pro 2.33GHz

- 2.33GHz Intel Core 2 Duo
- 160GB HD
- 2GB DDR2 SDRAM
- 8X SuperDrive

original price \$2,794

~~\$2499~~-\$150 (mail-in rebate)

**\$2349!** #7133510 While supplies last  
#7133538 Glossy display! Call for details.

## Colorful iPods at the lowest prices!

#7098940 iPod® shuffle 1GB

starting at ~~\$74~~94

#7098953 iPod® nano 2GB silver

starting at ~~\$142~~48

#7098946 iPod® with Video 30GB black

starting at ~~\$234~~87

#7098945 iPod® U2 Special Ed. 30GB

starting at ~~\$268~~99



FREE

Engraving

(select model)

FM Transmitter &

Carrying Case!

**MacMall**

1-800-321-7532

Visit us at [macmall.com](http://macmall.com)

Source Code: MACWORLD



# Connect with all the products

## SOFTWARE



**Now Shipping!**

**Adobe**

Upgrades Start at **\$1389**  
#7534486

**Bring Out the Master Designer in You**

**New! Creative Suite® 3 Master Collection**

■ Produce content for virtually all media ■ Combines the best of CS3 Design Premium, Web Premium, and Production Premium

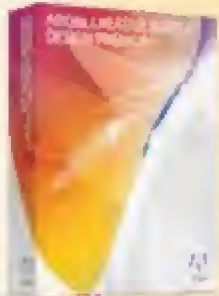


Upgrade Only **\$589**  
#7518275

**Let Your Creative Juices Flow**

**New! Creative Suite® 3 Design Premium**

■ Everything you need for print, Web, and mobile publishing ■ Includes InDesign CS3, Photoshop CS3 Extended, Illustrator CS3, Flash CS3 Pro, Dreamweaver CS3, Acrobat 8 Pro



Upgrade Only **\$494**  
#7519809

**Break Web Boundaries**

**New! Creative Suite® 3 Web Premium**

■ Create websites, applications, and mobile content with unprecedented interactivity ■ Includes Dreamweaver CS3, Illustrator CS3, Flash CS3 Pro, Photoshop CS3 Extended, Fireworks CS3, Acrobat 8 Pro, Contribute CS3



Upgrade Only **\$789**  
#7519868

**Capture Your Audience**

**New! Creative Suite® 3 Production Premium**

■ Wow any crowd with visually innovative film, Web, and mobile content ■ Includes After Effects Pro CS3, Premiere Pro CS3, Illustrator CS3, Flash CS3 Pro, Photoshop CS3, Soundbooth CS3, Encore CS3



Upgrade Only **\$344<sup>95</sup>**  
#7534970

**Extended, Expanded, Empowered**

**New! Photoshop Extended** is the must-have tool for film, video, and multimedia professionals and graphic web designers using 3D and motion.



## IPOD

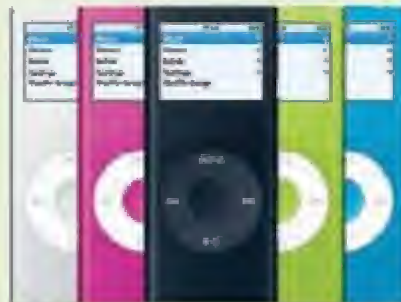
**Rock Your World Your Way**

**Authorized Reseller**

Starts at  
**\$74**

**iPod shuffle**

Wear up to 240 songs on your sleeve



**iPod nano**

Up to 2000 songs in five stylish colors

Starts at  
**\$142<sup>99</sup>**



**iPod**

Movies, music, photos, and TV shows to go

Starts at  
**\$237<sup>99</sup>**

## PERIPHERALS



**SAMSUNG**

**Demand the Best, Get the Best**

**New! 20.1" SyncMaster XL20 LED Monitor with Color Calibration Tool**

■ 114% color gamut ■ Height adjustable stand and detachable hood ■ 1600 x 1200 resolution ■ 1000:1 contrast ratio

Only **\$1695** #7460093

**EPSON**  
EXCEED YOUR VISION



**Print on Paper, Print on Plastic**

**Stylus Photo 1400**

■ 5760 x 1440dpi ■ PictBridge compatible ■ Print directly onto CDs and DVDs

Only **\$299<sup>95</sup>** #7414960

\*Price after mfr's \$50 mail-in rebate. Expires 12/31/07

**OLYMPUS**



**Evolve as a Photographer**

**New! EVOLT E-510 Digital SLR Body**

■ 10MP CCD ■ Compatible with Zuiko digital lenses ■ 2.5" LCD ■ Supersonic Wave Filter™ dust reduction system ■ Records to xD-Picture Card, CF Type I/II, and Microdrive media

Only **\$799** #7553353

Lens sold separately.

**BUFFALO**

**Price Reduction!**



**Hard-Working Hard Drive**

**1TB DriveStation Quattro™**

■ Supports RAID 0, 1, and 5 plus automatic RAID rebuilding ■ Four high-speed hard drives ■ Easy-to-use Mac OS X RAID Utility for changing RAID modes

Now Only **\$475** #7420032

**800.800.3333**

**www.macconnection.com**





Authorized Reseller

# you want, all in one place

## SYSTEMS

### 8-Cores of Incredible Performance

#### Mac Pro

with Dual-Core Intel® Xeon® Processors

- Up to two Quad-Core Intel® Xeon® Processors running at up to 3GHz
- 16X SuperDrive (DVD±RW DL) ■ NVIDIA® GeForce® 7300 GT graphics (256MB) ■ Easily expandable internal storage up to 3TB
- Double-wide 16-lane PCI Express graphics slot ■ iLife '06

Mac Pros Start at

**\$2099**



#### Mac Pro 2.0GHz

- Two 2GHz Dual-Core Intel® Xeon® Processors
- 1GB RAM
- 250GB HD

**\$2099** #7385003

#### Mac Pro 2.66GHz

- Two 2.66GHz Dual-Core Intel® Xeon® Processors
- 1GB RAM
- 250GB HD

**\$2399** #6317076

#### Mac Pro 8-Core

- Two 3GHz Quad-Core Intel® Xeon® Processors
- 1GB RAM
- 250GB HD

**\$3799** #7384967

### Better Handling and Storage Boost



MacBook Pros Start at

**\$1994**

#### MacBook Pro

with Intel® Core™2 Duo Processor

- Up to 4MB shared L2 cache, 2.40GHz with 667MHz FSB ■ Up to 4GB RAM
- Up to 160GB SATA HD ■ NVIDIA® GeForce® 8600M GT with 128MB GDDR3 memory ■ Up to 8X slot-loading SuperDrive (DVD±RW DL)
- New 17" hi-resolution matte display ■ Mac OS X 10.4.9 Tiger ■ iSight camera ■ Built-in 802.11n ■ FireWire 800

### Faster Processor, Same Low Price



MacBooks Start at

**\$1094**

#### MacBook

with Intel® Core™2 Duo Processor

- Up to 4MB shared L2 cache, 2.16GHz with 667MHz FSB
- Up to 2GB RAM ■ Up to 160GB SATA HD ■ Intel® Graphics Media Accelerator 950 ■ 8X slot-loading SuperDrive (DVD±RW DL) ■ 13.3" display ■ Mac OS X 10.4 Tiger and Front Row ■ iSight camera

### Same Apple, New Chip—Twice as Fast!

#### iMac

with Intel® Core™2 Duo Processor

- Up 4MB shared L2 cache, 2.33GHz, 667MHz FSB
- Up to 3GB RAM ■ Up to 250GB SATA HD
- 17", 20", or 24" widescreen LCD ■ ATI Radeon X1600 graphics with 128MB GDDR3 memory
- 8X slot-loading SuperDrive (DVD±RW DL)
- Built-in AirPort Extreme and Bluetooth 2.0 + EDR



iMacs Start at **\$994**

the right tools for the right brain™

**MacConnection®**  
A PC CONNECTION BRAND



WWW.MACSALES.COM/INDEX

OWC has memory for nearly every Mac including G3, G4, and G5!

**Cash Back  
REBATE!**  
Earn up to  
**\$250**

**Cash Back!**

OWC offers memory trade in rebates  
see [www.macsales.com](http://www.macsales.com) for details

All memory from OWC meets or exceeds Apple's specifications and is backed by a 30 day money-back guarantee and LIFETIME Advance Replacement Warranty.

Mac Pro Upgrades from

**\$80.00** per GB

OWC Mac Pro 8-core quad-core memory fully tested and certified to meet or exceed all Apple specifications for use in Mac Pro for a lifetime of performance. OWC Memory includes the use of actual Apple-Qualified Heat-Spreaders to ensure you can utilize these models with full confidence.

**Up to  
32GB of Mac  
Pro memory!**

### Detail of Apple- Qualified OWC heat spreaders for Mac Pro Quad Xeon

[www.macsales.com/storage](http://www.macsales.com/storage)

### Performance Plug and Play FireWire 800/400, USB 2.0, & eSATA

OWC Mercury Elite-AL Pro  
'Quad Interface'  
FW800/FW400/USB2.0  
300GB to 1.0TB (1000GB)  
from **£175.00**

OWC Mercury Elite-AL Pro  
Performance RAID Solutions  
320GB to 2.0TB (2000GB)  
from \$119.99

OWC Neptune FW400  
from ~~\$99.00~~  
250GB for ~~\$139.99~~  
500GB for ~~\$199.99~~

Triple: FW800/400+USB2.0  
160GB to 750GB (from \$199.99)

Prosoft Engineering® Data Backup 3, NovaStor  
NovaBACKUP®, and Intech® SpeedTools Utilities®  
a \$200 Retail Value FREE! Included with all QWC Mercury Elite,  
Mercury On the Go, QWC NeXTline, and NovaTech™ notebook computers.

PROSOFT

1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2677, 2678, 2679, 2680, 26

OWC Mercury On-The-Go  
FireWire, FireWire+USB2.0,  
USB2.0, USB2.0+eSATA  
Solutions: up to **250GB**  
from **\$129.99**

## ur own drive

FireWire/USB2.0/eSATA

3.5" Single & Dual Kits  
from \$54.95

2.5" Portable Kits  
from \$79.95

[www.macsales.com/harddrive](http://www.macsales.com/harddrive)

**2.5" ATA**  
**60GB to 160GB**  
**Starting from**  
**\$45.99**

**3.5" SATA**  
**300GB to 1.0TB**  
**from \$64.99**

**3.5" ATA**  
**80GB to 1.0TB**  
**Starting from**  
**\$49.99**

**2.5" SATA**  
**20GB to 250GB**  
**from \$79.99**

**Hard Drive  
Controller Cards  
from \$17.95**

**USB 2.0 UNIVERSAL  
DRIVE ADAPTER**

Macworld

### The Swiss Army Knife of Disk Connectivity *Gives New Life to Old Drives!*

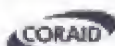
Connect any 2.5", 3.5", 5.25" IDE and SATA device to your computer through your USB 2.0 port. Easily transfer files from computer or notebook, back up files, or store large file archives on hard drives.







Featuring storage appliances by Coraid Inc. (www.coraid.com)



## Tired of swapping Firewire drives ?



Centralize your data with a Gigabit ethernet SATA-SAN Turnkey Storage Solution – up to 15TB per unit without a Server !

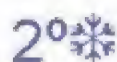
Shared Turnkey Storage SAN Solutions from 2°Frost :

- For Video & Audio Editing / Content Creation / SMB Work Groups / Disk-to-Disk Backup ...& Time Machine !
- The cost-effective alternative to iSCSI & Fibre Channel
- Unlimited capacity • Rack mount avail. • SAN Software

Now Also Available From

**MacMall**

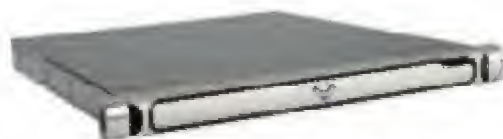
The #1 Apple Direct Reseller  
1-800-MACMALL (622-6255)



data solutions

www.2degreesfrost.com  
(360) 450-2133

**KBOX**  
BY KACE



## KBOX™ - Automate IT Mgt

KBOX™ from KACE provides centralized management and provisioning of systems, applications, and files. Manage systems including: software/hardware inventory, software distribution, help desk, and alerts.

www.kace.com/macworld



IN STUDIO 5.0

"Ready to replace your Stereo ~ We can't say enough about how great these speakers sound"  
Susie Ochs, MacLife Magazine

**WWW.SIERRASOUND.COM**

ACME MADE  
TRADEMARK



The Slim Cargo



The Nano Clip

modern products  
for a modern  
lifestyle.

acmemade.com



## Emergency Drive Copy

**Granite**  
D-I-G-I-T-A-L



The tool every computer user must have. Copy, Backup, Duplicate, Recover, Repair, Restore, Archive, and Test any SATA or IDE Hard Drive. Make a duplicate copy of critical data without having to open up the computer.

**USB 2.0 to SATA/IDE Cable... \$24.95**

## Drive Shield Protection



Protect any 2.5" and 3.5" hard drive mechanism. Slide in the drive and protect them from static electricity, short circuits, and impacts.

**Silicon Shields 2.5" & 3.5" Kit... \$9.95**

• granitedigital.com • 510-471-6442 •



# "Power and Substance... the oasis in the MP3 desert"

- Home Theatre Magazine



Self-powered • Wireless-ready • Works with everything  
30-day free audition • \$349 per pair • ☎ 877.853.4447

**audioengine**5  
www.audioengineusa.com

©2007 Audioengine. Apple iPod, Universal Dock and iTunes logo are trademarks.



## C.E.O.™ Premiere

Executive protection for iPhone™

### Includes:

- Fine leather iPhone case
- Permanently attached belt clip
- Clear protective film
- Microfiber cleaning cloth



www.MARWARE.com

Fine leather cases  
and  
accessories  
for your mobile devices

**NEW**  
MEM



Custom-Made  
Cases



iPhone Cases



Colors



Highly Fitted  
Cases

- Smartphone
- Cellular
- PDA
- GPS
- Multimedia
- Digital Camera



www.ebcases.com

MAGW07  
10% off





iGo \$333



i360° \$39.90

New!



mStand \$49.90



**cnet**  
Editors' rating  
Very good

iWoofer \$119



iLap from \$49.90

www.raindesigninc.com 1 800 797 7321 

## The Difference is Clear

**OmniCleanz® cleans what other cleaners leave behind**

*"It's the best display-cleaning juice I've ever used. It removes dirt and scuff marks better than other products."*

Bob "Dr. Mac" Levitus  
Houston Chronicle



**Try it Now**

**Save 20%**

Use Promotion Code  
**MW907QP**

Offer Expires 12/31/07

Actual Unretouched Photos of  
OmniCleanz vs Major Brand Cleaner

**RADTECH®**  
www.radtech.com

**biomorph™**

*the perfect Mac desk*



*effortless adjustment  
effortless style*

order at [biomorph.com](http://biomorph.com)  
catalog 888 302 DESK

Biomorph is a reg. ® of E.D. Design Company, LLC. ©2007 E.D. Design Company, LLC. All rights reserved.



SEND AN EMAIL!



**Macworld**  
SHOWCASE

niki\_stranz@macworld.com

iPodMiniMall.COM

Get iPod / iPhone,  
iPod / iPhone Cases,  
iPod / iPhone Speakers,  
iPod / iPhone Headphones,  
And More.....  
All for Guarantee Low prices.

[www.iPodMiniMall.com](http://www.iPodMiniMall.com)



## Need a mount? We have a solution

Laptops, Tablets, Cell Phones, GPS, Music Players & more.

Mount them anywhere to anything



**EXPRESS X MOUNTS**

For more information,  
contact Express Mounts at  
800.231.7540 or online at  
[www.expressmounts.com](http://www.expressmounts.com)

## DURABLE PROTECTION for your laptop!

Our shells don't just look good...  
they offer solid protection  
for your investment!



**TECHSHELL**

- Snap On Design
- Complete Protection
- Scratch Resistant
- Full access to all ports
- Lifetime Warranty

**25 Great  
Styles!**

[info@techshell.com](mailto:info@techshell.com)  
[www.techshell.com](http://www.techshell.com)

**888.830.1285**

## Meet your new best friend.

**GARMIN nūvi.**

- Color 4.3" diagonal Large Touch Screen Display
- Preloaded with USA & Canada Street Maps
- Built-in MP3 Music Player and Picture Viewer
- Speaks Street Names with Voice Guidance

Also available on select models: Bluetooth Cell Phone Connection.  
Listen through your stereo with a built-in FM Transmitter, Live Traffic Updates  
with Integrated Receiver, European Maps, MSN Direct Live Updates and more.



**gpscity.com**

We'll lead the way.

Visit us online at [www.gpscity.com](http://www.gpscity.com) for more information and **STREAMING VIDEOS**  
on the Garmin nūvi and other Garmin GPS products.

Phone: 1-866-GPS-CITY | Email: [sales@gpscity.com](mailto:sales@gpscity.com) | Canada: [www.gpscity.ca](http://www.gpscity.ca)

**macally™**

**MCASE**



**mClip-X**

**MSLEEVE**



all new **iPhone** accessories



**USBPOWER**

Call us for dealers near you 1.800.644.1132 or visit us at: [www.macally.com](http://www.macally.com)



Version 2

**TurboCAD<sup>®</sup> MAC PRO**  
Precision 2D Drafting & 3D Modeling



AutoCAD<sup>®</sup> & Adobe<sup>®</sup> Illustrator<sup>®</sup> Compatible  
Realistic 3D Rendering  
Intuitive, Powerful, Precise.

To order call: 1-800-833-8082 Use Promo Code: MacWorld06  
or visit: [www.turbocad.com/mw06](http://www.turbocad.com/mw06)

Is your business drowning in e-mail?



**MailTank is your solution. Try it free.**

Learn more at <http://mailtank.com> or call 877-622-8265

**FastMac**  
Performance Upgrades

<b>iPod/ iPhone Batteries</b> All Models with Tools & Video Up to 78% More Capacity Patented Technology 2 Year Warranty from <b>\$19</b>	<b>iPod LCD Screens</b> Gen 3/4 • Photo • Mini • Video Nano • Up to 60% Brighter Exact Match, Tools & Videos Included from <b>\$29</b>	<b>Laptop Batteries</b> iBook • PowerBook • MacBook Up to 68% More Capacity Perfect Fit & Finish Rated "GREAT" from <b>\$89</b>
<b>SuperDrives</b> iBook • PowerBook • MacBook Up to 18x DVD RWs 100% Compatible Plug & Play from <b>\$69</b>	<b>Processor Upgrades</b> G3 • G4 • Pismo • iMac • Intel Up to 1.8 GHz, 6x Faster 2MB L3 Cache from <b>\$89</b>	<b>Power Adapters</b> iBook • PowerBook • MacBook Compact & Durable Extra Long 10 ft. cord from <b>\$35</b>

Call 866.416.FAST or Visit [www.fastmac.com/mw](http://www.fastmac.com/mw) for a special offer!

**802.11n for  
all PowerBooks!**



**QUICKERTEK<sup>™</sup>**

BEFORE YOU CAN THINK IT

1.866.691.1585 sales  
[quickertek.com](http://quickertek.com) web  
1.316.691.1585 tech



**Morph 9ge**

Morphing is back on Mac  
Create amazing transitions between  
faces or other images

**Magnet**

Customize your movies  
Add glasses, hats, pounding hearts and  
other special effects to your movies



Visit [www.s-cinder.com/mw10.html](http://www.s-cinder.com/mw10.html) for a **10% discount**

**MacMania<sup>™</sup> 7**

Nov. 3rd – 13th, 2007 • Panama Canal

[www.GeekCruises.com/Mac-7](http://www.GeekCruises.com/Mac-7)

**Speakers**

Janet Hill  
David Pogue  
Randal Schwartz  
Jason Snell  
Derrick Story  
Robin Williams  
Steve Wozniak

Checkout testimonials,  
weblogs, photos, videos, and  
past seminars at  
[GeekCruises.com/Experience](http://GeekCruises.com/Experience)



**Insight Cruises**  
EDUCATION THAT TAKES YOU PLACES

CO-PRODUCED BY

**Macworld**

CSA 2065380-40



# sharpdots.com

Your Online Resource For All Your Printing Needs

MACWORLD SUBSCRIBER  
PROMOTION



**RAPIDOTS**  
4X6 POSTCARDS  
2,500 4/4  
**\$88**

14pt gloss card stock  
UV coating one-side  
Additional products  
available online.

Expires October 31, 2007  
Online orders only.

Enter coupon code: 104607 for discount



**RapiDots**

Save time and money!  
Bypass digital proof process  
2-3 business day turnaround

1000	4/4	Business cards	\$40
1000	4/4	4x6 Postcards	\$64
1000	4/4	Bookmarks	\$80
1000	4/4	5x7 Postcards	\$87
1000	4/4	5.5x8.5 Postcards	\$109

Go to [www.sharpdots.com](http://www.sharpdots.com) or call 877.742.7789

High-Performance Mac Memory



Lifetime Warranty

Same Day Shipping

1-800-831-4569

Mon-Fri 9am-6pmCST

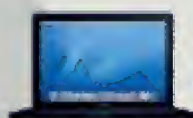
Memory Upgrades

**iMac Intel**



512mb - \$29  
1Gig - \$55  
2Gig - \$109

**MacBook**



1Gig - \$58  
2Gig - \$109

**Mac Pro**



1Gig - \$145  
2Gig - \$195  
4Gig - \$389

**MacBook Pro**



1Gig - \$55  
2Gig - \$109

**Mac mini Intel**



1Gig - \$58  
2Gig - \$109

**G5 DDR2**



1Gig - \$75  
2Gig - \$118  
4Gig - \$275



Speak to a  
Memory Expert

Secure Online Ordering at

**WWW.RAMJET.COM**

1-800-831-4569

Professional, Fast, Dependable



**AmericasPrinter.com**

The easiest way to print today.



*"We use  
Americas  
Printer.com"*

**Presentation  
Folders** \$629  
starting at only

**TriFold  
Brochures** \$179  
starting at only

**Sales Sheets** \$99  
starting at only

**Letterhead** \$129  
starting at only

**Postcards** \$79  
starting at only

**Business Cards** \$39  
starting at only

**Catalogs** \$339  
starting at only

**Doorhangers** \$179  
starting at only

OUR NEW STANDARD.  
**THICKEST**  
IN THE INDUSTRY  
C2S  
**16pt**  
ON ALL HEAVY PAPER PRODUCTS

MIX'N'MATCH  
**GLOSS UV  
COATING**

FRONT BACK  
☐ NO UV ☐ NO UV  
☐ FLOOD UV ☐ FLOOD UV  
☐ SPOT UV ☐ SPOT UV

All full color offset Printing. All premium stock paper.

- **FREE Sample Kit!**
- 2,000+ products in our Price Guide
- Great Pricing with Fast Turnaround
- 15,000+ Customers Nationwide
- Full Commercial Heidelberg Printshop
- Print & Ship Anywhere in the USA

We Accept



Preferred Shipping Carriers



**800.552.1303** toll free

714.521.1100 CA | 714.521.5650 fax

6910 Aragon Circle, Buena Park, CA 90620

[www.AmericasPrinter.com](http://www.AmericasPrinter.com)



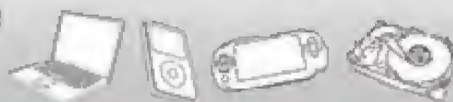




## Mobile Electronics Repairs & Upgrades

Overnight - Nationwide

- Local Pickup & Delivery
- Fast Friendly Service



**1-888-64-RESTORE**

(1-888-647-3786)

8am - 5pm PST M-F

[techrestore.com](http://techrestore.com)



### Mac Laptop Restore

Overnight Service  
Only **\$79**

Overnight LCD  
Repairs From **\$329**

Overnight 8x Dual Layer  
Superdrive Upgrades **\$229**

Overnight HD Upgrades  
Up To 250GB  
From **\$169**



### iPod Restore

Overnight Service  
Only **\$29**

iPod Battery  
Upgrades **\$19**

iPod Screen  
Repairs From **\$59**

Second Generation  
iPod nano Sale  
Up to 8GB From **\$99**



### Data Restore

Overnight Service  
Only **\$49**



iBooks & PowerBooks  
From **\$329**



### PSP Restore

Overnight Service  
Only **\$29**

**Shop** for Mac Laptops,  
iPods, Apple TVs & Mobile  
Electronics Accessories

**Tech e-store**

**Why Choose ESS Data Recovery?**

- Superior, 24/7 Service
- Confidentiality Guaranteed
- Affordable, Up-front Pricing (no hidden charges)
- High Recovery Success
- Class-100 Clean Room Lab Standards
- Patent-Pending Recovery Technology
- Free Drive Included for Data Return

**ESS DATA RECOVERY LABS**  
**800.237.4200**  
[www.savemyfiles.com](http://www.savemyfiles.com)

## DATA RECOVERY: 800-440-1904

### 7 great reasons to choose DriveSavers:



- Fast, advanced, proprietary techniques.
- Recommended by all computer and hard drive manufacturers.
- All operating systems; Mac, Windows, OS/2, Netware and UNIX.
- All storage devices including flash memory, MP3 players, SAN, RAID and NAS systems.
- Instantly retrieve recovered data with DataExpress™.
- Government Contracts and High Security Service.
- Featured in MacWorld, MacAddict, Forbes, CNN, BBC, New York Times, Popular Mechanics and more.



[www.drivesavers.com](http://www.drivesavers.com)

**"We Can Save It!"**

Visit DriveSavers at [www.drivesavers.com](http://www.drivesavers.com)

©2005 DRIVESAVERS, INC. 400 DEL MARIN KEYS BLVD., NOVATO, CA 94949 INTL 415-382-2000



# THE REVOLUTION CONTINUES!

VERSION 2.0

COMING SOON!

**DIZ4BIZ**  
DESIGN 4 BUSINESS  
YOUR OWN BUSINESS

gives you total control, with:

- Unsurpassed 4over print quality.
- Your domain, your logo, your design. Or use our templates.
- The site is under your full control.
- Blind-drop shipping. Your customers see only your company's name, not Diz4Biz.

Open your own online print shop.

Setting up Diz4Biz is a SNAP!

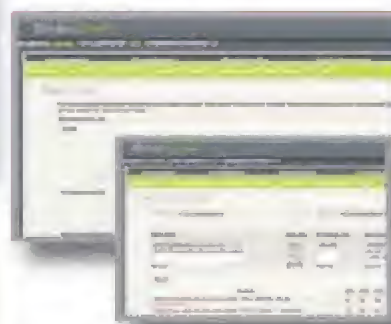


Sign up online.



Choose a template, add your logo, and choose the products you'd like to offer.

Set your own pricing.



Get your own web address, and set up your own merchant account at Authorize.net (no one will ever see Diz4Biz.com, only your company's name)

[www.logoly.com](http://www.logoly.com)

Go ahead - test drive some actual sites.

[www.14pt.com](http://www.14pt.com)



P: 877-782-2737  
F: 877-972-9117

[www.4over.com](http://www.4over.com)

5900 San Fernando Road  
Glendale, California 91202

**Register. Choose a template. Upload. It's That Easy.**

Go to [www.JoinDiz4Biz.com](http://www.JoinDiz4Biz.com) and learn more about the Diz4Biz revolution!



SUPPLY TRADE PRINTERS



# 1-2<sup>BUSINESS</sup> DAY STANDARD TURNAROUND

Photo Quality Printing  
equivalent to 450-line screen

## ZOO PRINTING

This website is for trade only!  
All trade customers must qualify  
to receive these prices.  
For more information, visit us at:

[www.zooprintingtrade.com](http://www.zooprintingtrade.com)  
**CALL 310.253.7751**

**1000 BUSINESS CARDS** \$**15**  
14 Point C2S 4/0  
with UV Coating one or Two Sides

**1-2<sup>BUSINESS</sup> DAY  
TURNAROUND**

**1000 8.5 x 11 FLYERS** \$**75**  
100# Glossy Text 4/0  
with AQ Coating

**1-2<sup>BUSINESS</sup> DAY  
TURNAROUND**

**1000 4 x 6 POSTCARDS** \$**55**  
14 Point C2S 4/4  
with UV Coating one or Two Sides

**1-2<sup>BUSINESS</sup> DAY  
TURNAROUND**

## Mac® Prices

[www.pcprices.net](http://www.pcprices.net)



- Exclusive Mac price trackers
- Prices updated daily
- New and clearance models
- Macs, iPods, Displays, & more

Compare at a glance...  
prices, bundles, & availability  
from major Apple resellers

**WWW.MEMORYSOLUTIONS.COM**

We've got all the memory solutions you need for:

800-462-2160

Mac Pro® • MacBook Pro® • MacBook® • Power Mac®  
PowerBook® • iMac® • iBook® • eMac® • Mac Mini®

*Samsung memory available*

2gb 667 MHz DDR2 ECC FB-DIMM* for Mac Pro	\$189
1gb 667 MHz DDR2 ECC FB-DIMM* for Mac Pro	89
2gb 5300/667 for MacBookPro/All Intel Macs	129
1gb 5300/667 for MacBookPro/All Intel Macs	45
1gb 4200/533 for DualCore G5	45
1gb 3200/400 For Dual Processor G5	69
1gb 2700/333 Powerbook G4/iBook G4	99

\*FB = Fully Buffered

Note: Prices are subject to change.  
Check our website for the most up-to-date info.

© = Registered Trademarks of Apple Computer, Inc. No affiliation with Memory Solutions. Quantities limited to stock on hand. School P.O.'s welcome.

You need 'em?



We've got 'em!

**EDG**  
REAL AMERICAN GRAPHICS

**5000  
4x6 POSTCARDS  
\$119**

FULL COLOR DOUBLE SIDED  
ON THICK 14PT CARD STOCK  
\*price does not include artwork or shipping

**877.PICK.EDG**  
[www.edgmiami.com](http://www.edgmiami.com)

**BIG  
POSTERS  
AT HUGE DISCOUNTS**

2-3 DAY  
TURNAROUND

OTHER SIZES  
AND MEDIA  
AVAILABLE

LAMINATION &  
MOUNTING  
AVAILABLE

24" x 36"	17" x 22" ... \$12 <sup>99</sup>
<b>\$25</b> NO MIN	36" x 48" ... \$50
GLOSS, SATIN, MATTE FINISH	48" x 72" ... \$125
	60" x 84" ... \$210
	GLOSS, SATIN, MATTE FINISH

Learn more: Call or visit: **BIGPOSTERS.COM**  
Course: James P. Pickering & Partners - 16 Ferns Road - Farmingdale, NY 11735

**1-888-880-HUGE**



**MacHighway**™

SINCE 1997

Mac Powered Web Hosting for Mac Users,  
by Mac Users. Plans for as little as  
**\*\$4.12 a month\***

[www.MacHighway.com](http://www.MacHighway.com) | Toll Free 1-800-604-9960

Get a free month when you sign up!

(use coupon code A7643)

Mac is a registered trademark of Apple Computer Inc. © Category 99, Inc., All rights reserved.





# Where's Your Web Site?

## Original FatCow Web Hosting Plan

- 300 GB of Disk Space for Your Files
- 3,000 GB of Monthly Data Transfer
- Unlimited E-Mail Accounts
- Easy-to-Use Site Building Tools
- WordPress, phpBB, GBook Included
- ShopSite Online Store
- Friendly 24/7 Customer Support

only  
**\$8.25**  
a month\*

## FatCow Now Offers ...

### InstallCentral

Enhance your site with the latest applications available using this simple installation wizard.

### Exchange Hosting

Use Entourage to access, sync and share e-mail, schedules, contacts and tasks.

Udderly Fantastic Web Hosting for Creative Individuals

\* Monthly rate based on the annual fee of \$99, due at signup.

1.866.544.9343

Visit us today. [www.fatcow.com/macworld](http://www.fatcow.com/macworld)

**100%  
SATISFACTION  
GUARANTEE**  
(SEE SITE FOR DETAILS)



premier online **wholesale** supplier  
of high quality printing



**FREE SHIPPING**

Ground Shipping Only. Expires 10/31/07. Not Valid in Hawaii, Alaska, or Puerto Rico. US Shipments Only.

Promotional Code:

**MAGSHIP10**

(Toll Free) 1. 866.298.8586

[support@wholesaleprintingdirect.com](mailto:support@wholesaleprintingdirect.com)

[www.wholesaleprintingdirect.com](http://www.wholesaleprintingdirect.com)



**Turn your computer clutter  
into cold cash!**

**WE BUY** Apple Macintosh and other brand name laptops, desktops and servers. We buy from businesses, institutions and individuals. One unit or a thousand, working or not, contact us for a quote. **AND...**

**WE SELL** fully refurbished Apple Macintosh computers, providing you with a new computer experience at a used computer price.

Call us today **(800) 960-1140**

**MicroReplay**

[www.microreplay.com](http://www.microreplay.com)

MicroReplay, Inc. 309 Walnut Street, Wellesley, MA 02481 - (781) 237-1140



**Students & Teachers****Academic Discounts For You!**

Prices may be subject to change.

<b>Sibelius®</b>	
Sibelius 5.....	\$249
<b>MakeMusic®</b>	
NEW! Finale 2008.....	\$259
<b>Propellerheads®</b>	
Reason 3.0.....	\$199
<b>Native Instruments®</b>	
Kontakt 2.....	\$229
Guitar Rig 2.....	\$429
Reaktor 5.....	\$229

<b>Adobe®</b>	
Acrobat Pro 8.....	Save 67%
Photoshop CS3 Ext.....	Save 71%
InDesign CS3.....	Save 73%
Flash CS3 Pro.....	Save 66%

<b>Total Training®</b>	
Acrobat 8 Pro Training.....	\$89
Photoshop CS2 Training.....	\$99
Creative Suite 2.3 Training ....	\$399

<b>Microsoft®</b>	
Office 2004 Student/Teacher.....	\$144

**Hey Parents!**

You are eligible to buy for all your students at home or away.

**FREE Shipping!**

...on ALL your online orders!

**"Shop from over 10,000 products in stock today!"****K-12 to College!****Save Up To 85%**

source code A154

**ACADEMIC SUPERSTORE****1-800-218-7455****MW.AcademicSuperstore.com****Want to save a few Bucks?**Substantial Savings for Students, Faculty, & Schools.  
Save Up to 50 - 80% off retail!**CampusTech Trade-In Program**

Get Trade in value for your old equipment and earn credit towards future purchases!

Thousands of software and electronics at significant savings from manufacturers such as

**Microsoft** **Adobe** **hp** **Quark** **Skullcandy**
**campus tech**  
campus tech
866.778.9835 [www.campustech.com/mac](http://www.campustech.com/mac)**Mac of All Trades**

Your Solution for Buying and Selling Used Macs

**[www.macofalltrades.com](http://www.macofalltrades.com)**
**800-227-3971**  
 1200 Marshall St., Shreveport, LA 71101

 We buy,  
 sell, and  
 horse-trade
**Macintosh****[ShreveSystems.com](http://ShreveSystems.com)**



# MEMORY!



Pre-owned  
iBook Special

667 MHz DDR2 ECC for Mac Pro 4gb Kit 2x2gb • 2gb Kit 2x1gb  
5300/667 - MacBookPro/All Intel Macs 2 gb & 1gb 667 SoDIMM  
4200/533 For DualCore G5 4gb Kit 2x2gb • 2gb Kit 2x1gb  
4200/533 Powerbook G4 Hi-Res 1gb 533  
3200/400 For Dual Processor G5 2gb Kit 2x1gb • 1gb Kit 2x512mb  
2700/333 Powerbook G4 1gb 533 — PowerMac G4 FC133 256mb • 512mb

LIFETIME  
WARRANTY  
RAM

12" 1.33 iBook-used 512mb/40gb/Combo/APX/BT \$599 w/ 1-year warranty

Click for Best Prices on New Memory, Drives & Accessories!



**800-873-3726**

11933 Wilshire Boulevard, West LA, CA 90025  
Phone: (310) 914-3200 Fax: (310) 900-4433

**MacSolutions.com**

## MEGA MACS.COM

Your Source for MegaMac Deals since 1995

### PowerBook G4

12" 1.0GHz 768/80/SD \$729  
12" 1.33GHz 768/80/SD \$779  
15" 1.33GHz 768/80/Cmb \$799  
15" 1.67GHz 1GB/120/SD \$1099  
17" 1.0GHz 512/60/SD \$999  
17" 1.67GHz 1G/100/SD \$1199  
17" 1.67GHz 2G/100/SD \$1299

### iBook G4

12" 1.2GHz 256/60/CD \$579  
12" 1.33GHz 512/40/Cmb \$649  
14" 1.0GHz 640/60/Cmb \$599  
14" 1.33GHz 512/60/Cmb \$600  
14" 1.42GHz 1GB/60/SD \$649

Office 2004 Professional only \$49 with Purchase of System  
Free Brenthaven case (\$99 value)  
with Purchase of most iBooks & PowerBooks

### Apple Software

.mac 4.0 Family Pack \$99  
Final Cut Express HD 3.5 \$249  
Tiger 10.4.6 Family Pack \$139  
Tiger 10.4.6 Single User \$119  
Tiger 10.4.7 10 User Server \$399

### Utility Software

Project X \$139  
Quicken 2007 \$59  
Final Draft 7.1 \$159  
MindManager 6 \$154  
Norton Antivirus 10 \$42  
Office 2004 Standard \$249  
FastTrack Schedule 9 \$249  
MYOB AccountEdge 2007 \$159

### Xserve RAID

3.5TB/7x500GB \$4999  
4.5TB/9x500GB \$5549  
7.0TB/14x500GB \$7999

### PowerMac G5

1.6 GHz 512/160/SD \$1199  
1.8GHz Dual 1GB/160/SD \$1299  
2.5GHz Quad 6G/1TB/SD \$2659

### iMac G5

17" 1.6GHz 256/80/Cmb \$649  
17" 1.8GHz 1G/160/Cmb \$829  
17" 1.9GHz 512/160/SD \$919  
20" 1.8GHz 512/250/SD \$929  
20" 2.1GHz 1GB/250/SD \$1379

### Graphics Software

Illustrator CS3 \$459  
Illustrator CS2 \$359  
TurboCAD v1 \$29  
TurboCAD Pro v2 \$154  
GoLive CS2 \$259  
InDesign CS3 \$529  
Dreamweaver CS3 \$294  
Macromedia Studio 8 \$599  
Photoshop Extended CS3 \$649

### AppleCare

Mac Mini \$109  
MacBook Pro \$279  
iBook/MacBook \$179  
PowerMac/Mac Pro \$169

Phone: 918-664-MEGA(6342) Fax: 918-663-6340

Prices rounded down and subject to change, not responsible for errors, quantity limited

## SeafoodByNet.com

Fresh from the sea to your doorstep!

Join our free  
Fresh Club Newsletter  
for daily fresh deals!

Visit

[www.SeafoodByNet.com](http://www.SeafoodByNet.com)  
or call 815-337-4028



Your store for restaurant quality seafood and meats.

STUDENTS • EDUCATORS • SCHOOLS

**journeyEd**.com



Students save. Others don't.

Get ready for  
Back 2 School!

SAVE UP TO  
**85%**

OFF RETAIL PRICING

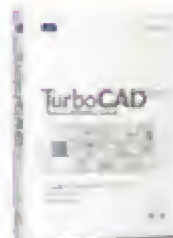


**M-Audio**  
ProTools 7.3  
M-Powered

SRP \$299

**\$149<sup>98</sup>**

Save \$150



**IMSI**  
TurboCad  
Mac v2

SRP \$69

**\$49<sup>98</sup>**

Save \$20



**JMDesigns**  
Backgrounds  
for PowerPoint

SRP \$39

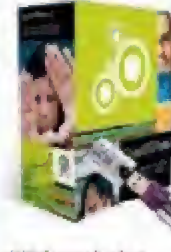
**\$9<sup>98</sup>**

SRP \$29



**Kaplan**  
SAT, ACT and  
PSAT 2007  
Express

**\$9<sup>98</sup>**



**Quark**  
QuarkXPress 7  
with 1GB USB 2.0  
Flash Drive\*

SRP \$799

**\$199<sup>98</sup>**

Save \$590

\*While supplies last



**Alias**  
Maya 8.5  
Unlimited  
Bundle

SRP \$6599

**\$389<sup>98</sup>**

Save \$6199



**Pantone**  
Essentials

SRP \$299

**\$169<sup>98</sup>**

Save \$129

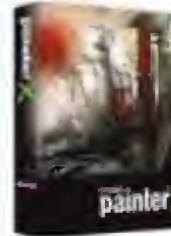


**Endnote XI**

SRP \$299

**\$99<sup>98</sup>**

Save \$199



**Corel**  
Painter X

SRP \$429

**\$99<sup>98</sup>**

Save \$329



**MakeMusic**  
Finale 2007

SRP \$800

**\$279<sup>98</sup>**

Save \$320



**Adobe**  
Creative Suite 3  
Design Premium

SRP \$1799

**CLICK!**

**www.JourneyEd.com**

1.800.874.9001

Priority Code: MW



# The iPod of Phones

Game-changing, fun to use, stunning: Sound familiar?

**I**t doesn't have every feature in the world, but most of those it has work very well. It's fun to use, its design and interface are stunning, and it integrates seamlessly with content on your computer. And though people may not realize it yet, it's going to completely change its market.

If you'd read that statement a couple of years ago, chances are you'd have guessed it was describing the original iPod. And you'd have been correct: The first iPod, introduced back in October 2001, fit that description to a T. But the description also fits a more recent piece of Apple hardware: the iPhone.

Or, if you will, the iPod of phones.

## Déjà Vu

If you've read the reviews or talked to people who've used an iPhone, you know I'm not the only one who feels that way. The general public is wowed by the iPhone's attractive design and ease of use. Mac fans drool over the things it does right (real mobile Web browsing!), while bemoaning the things it lacks (iChat). Cell phone aficionados have noted several features it doesn't have, and everyone is grouching about the price.

All of this should sound familiar: The original iPod was praised for its interface, ease of use, and groundbreaking features, yet criticized for being too expensive and for lacking features that other portable players had.

It's no coincidence that the first iPod and the first iPhone have had analogous receptions. Apple clearly had similar goals in mind when designing the two devices: get the main features right and make them easy to use; integrate those features in a way people haven't experienced before; use a computer for things that are more easily done on a computer; and then sync the device and computer seamlessly; and make the entire package look and function in a way that will make people really want to use it.

At the same time, just like the first iPod, the first iPhone isn't perfect. In addition to the features it's missing,

some of the features it does have don't feel quite finished. And plenty of phones out there do more. On top of that, the iPhone doesn't come cheap (at least not in the eyes of U.S. consumers, who are used to having their carriers subsidize their phones). All of these things together would appear to support the argument that, Apple's PR spin aside, the iPhone is far from revolutionary.

## Changing the Game

But here's the truth that Apple-haters don't want to hear: The iPhone is every bit as revolutionary as the iPod was. Not in terms of the features it offers, but in how it offers them—its ease of use, innovative user interface, slick integration with iTunes, and way of making features that go unused on other phones useful.

Now don't get me wrong; I'm not saying that we can't quibble over which

**It's no coincidence that the first iPod and the first iPhone have had analogous receptions.**



major and minor features should have been included in version 1.0. (Although I suspect that many of those omissions will be addressed via software updates; perhaps some will have already been fixed by the time you read this.)

But such complaints—and I have quite a few myself (see “I Want Buttons,” *Mac Beat*, page 26, for the specifics)—miss the larger point, which is that the iPhone has in one fell swoop transformed the mobile-phone market, just as the iPod did the portable-media-player market six years ago. Thanks to the iPhone, expectations and standards for mobile phones—for everything from external design to software interface to the activation process—just got a lot higher. As a result, just as non-Apple portable media players have improved tremendously since the iPod made its debut, other phone vendors might finally take the overall user experience more seriously.

At the same time, just as Apple stayed ahead of the iPod's competition by regularly introducing new models with new features and at different price points, the company seems set to follow a similar process here. As the iPhone platform matures, I fully expect Apple to add new features (without going overboard) and improve existing ones, as well as release less-expensive models, all the while keeping the product easy to use.

In other words, calling the iPhone “the iPod of phones” isn't just a quip; it really is the best way to think of Apple's latest handheld gadget. Whether the iPhone achieves anything approaching the iPod's success remains to be seen. But after using the iPhone for a while, I can tell you that it is similar to the first iPod in one other way: Whatever your initial impression, the more you use it, the more you appreciate it—and the more you wonder how you ever got along without it. ❧

**Dan Frakes** is a senior editor for *Macworld* and the senior reviews editor for *Playlistmag.com*.



# Small Yet Powerful



UP TO 150MB/s UP TO 1.0TB FROM \$169.99

## miniStack v3

Just like the humble ant that can carry 50 times its own weight, **miniStack v3** packs impressive power into a small, lightweight body. With storage capacities up to 1.0TB (1,000GB), it can hold up to 1 million pictures or 350,000 songs\*. And **miniStack v3** is equally nimble...able to transfer files at speeds up to 150MB per second thanks to its Oxford 924 based "Quad Interface" FireWire® 800/400/USB 2.0/eSATA storage and powered hub solution. Combine that port flexibility with the included connecting cables and you might get carried away moving **miniStack v3** among multiple Mac® and PC systems for a digital data feast.

\* Capacities based on 1MB per 24 megapixel JPEG photo or 2.85MB per MP3 song.  
The actual total capacity will depend on your own defined file settings/preferences.



- 1 - One eSATA port (rear)
- 2 - Two FireWire 800 (1394b) 9 pin ports (rear)
- 3 - One FireWire 400 (1394a) 6 pin port (side)
- 4 - Three USB 2.0/1.1 'A' ports (2 rear, 1 side)



### What Can You Store on a miniStack v3?

This chart is an illustrative example of different file formats and the vast number of your digital lifestyle files that can be stored on <b>miniStack v3</b> .	250GB 16MB Cache	500GB 16MB Cache	750GB 16MB Cache	1.0TB 32MB Cache
<b>Photos:</b> (1MB per 24 mega pixel JPEG photo)	250,000 Pictures	500,000 Pictures	750,000 Pictures	1,000,000 Pictures
<b>Uncompressed Digital Video:</b> (19GB/hour data rate)	19 Hours	38 Hours	57 Hours	76 Hours
<b>Songs:</b> (2.85MB per MP3 song)	87,500 Songs	175,000 Songs	262,500 Songs	350,000 Songs

*The actual total capacity will depend on your own defined file settings/preferences.*



### A Virtual Picnic Of Tasty Features

- ✓ Perfect companion for ANY Mac or PC
- ✓ Portable to move among multiple systems
- ✓ Powered hub for connecting multiple desktop accessories
- ✓ Award winning origins
- ✓ Compact 6.5" x 6.5" x 1.5" size
- ✓ Lightweight at 2.6 lbs (pre-configured models)
- ✓ Whisper Quiet operation
- ✓ Audio/Video Certified
- ✓ \$200 software bundle included\*\*

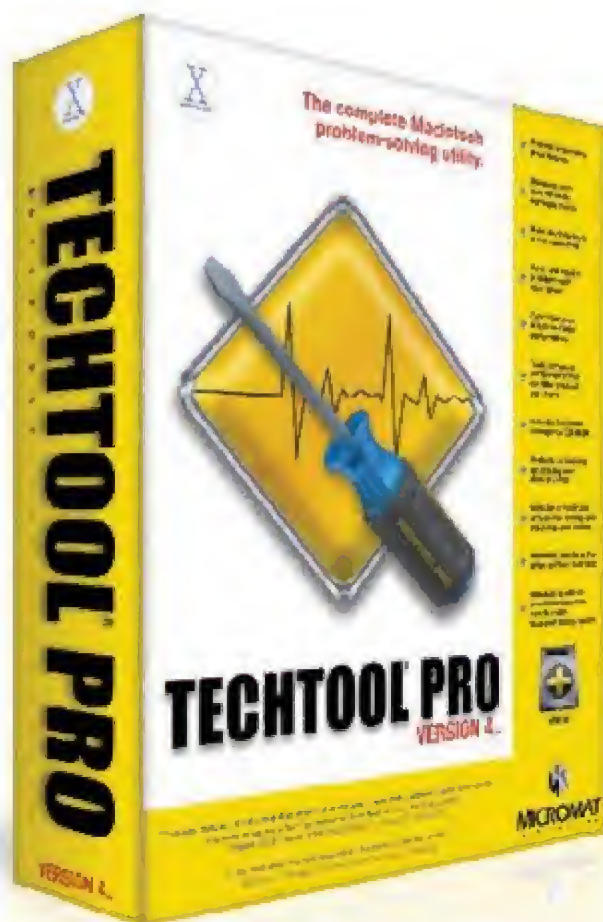
\*\* In pre-configured solutions, \*add your own hard drive\* kits also available. Software packaging not included in bundle (bundle includes software CDs only).

**newer technology**  
Visit: [www.newertech.com](http://www.newertech.com) or Call: 815.308.7001

Newer Technology, miniStack, Zipw@rk, and Zipw@rk are registered trademarks of Newer Technology, Inc. Newer Technology, Inc. logo is a trademark of Newer Technology, Inc. All other product names, brand names, and marks may be trademarks or registered trademarks of their respective owners. Prices, specifications, and availability are subject to change without notice. Items returned within 30 days may be subject to a restocking fee. No return will be accepted without return Merchandise Authorization number.

To purchase NewerTech products, visit distributor:  
**Other World Computing**  
at [www.macsales.com](http://www.macsales.com) or (800)275-4576





## Maintain your Mac like a Pro.

The complete Macintosh problem solving utility.  
Now for both Intel and PowerPC Macs.

Why throw away your money on a multitude of utilities that force you to learn different interfaces and deal with a variety of companies and/or different products? Micromat gives you everything you need in one box—for far less money. TechTool Pro is a complete Macintosh repair shop in a box. In fact, it's so good that Apple includes a copy of its sibling, TechTool Deluxe, in its AppleCare Protection Plan. If you experience freezes, kernel panics, or other problems, TechTool Pro can help you get your computer running smoothly again. Nothing else even comes close to TechTool Pro! Use TechTool Pro for:



### Diagnostics and Repair

Ensure that your computer keeps running its best.



### Optimization

Enhance the overall performance and simplify file layout of your hard drives.



### Data Recovery

Recover important data from corrupted hard drives.



### Safety

Protect your computer and hard drives automatically in the background.



### eDrive

Create an emergency startup partition so TechTool Pro is always available.

TechTool Pro is a feature-packed release of the most comprehensive diagnostic, repair, and maintenance utility of all time! A must-have Macintosh application, this utility from Micromat is truly the one indispensable product you need to ensure your Mac is always trouble free.



Micromat, Inc., 5329 Skylane Blvd., Santa Rosa, CA 95403, USA  
800-829-6227 707-566-3831 [info@micromat.com](mailto:info@micromat.com) [www.micromat.com](http://www.micromat.com)

©2007 Micromat, Inc. All rights reserved. TechTool is a registered trademark of Micromat, Inc. DiskStudio and Protege are trademarks of Micromat, Inc.



Also From Micromat

DiskStudio &  
TechTool Protege

